Making Full Use of Orchestral Colors in Interactive Music

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GAME DEVELOPERS CONFERENCE®
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1. What is Orchestration?

2. A look at the orchestration of *Mars*

3. Recording layered music

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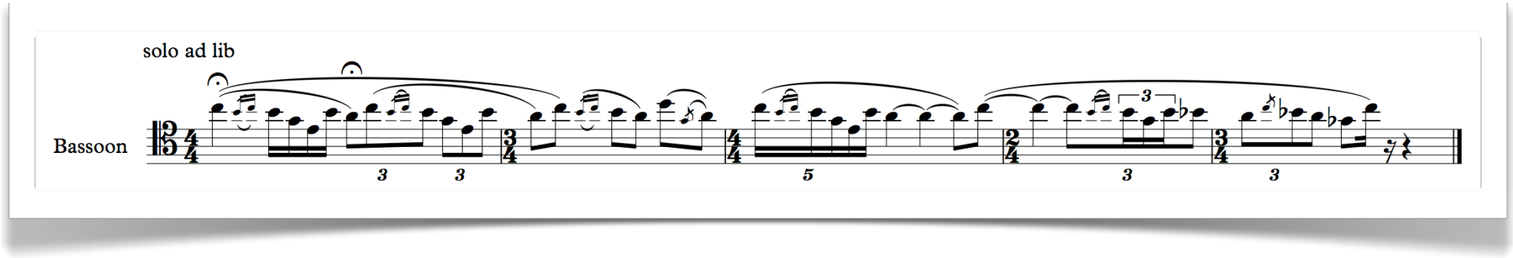
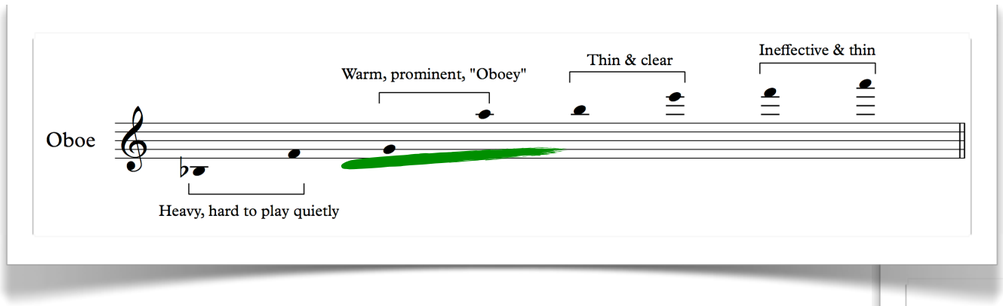
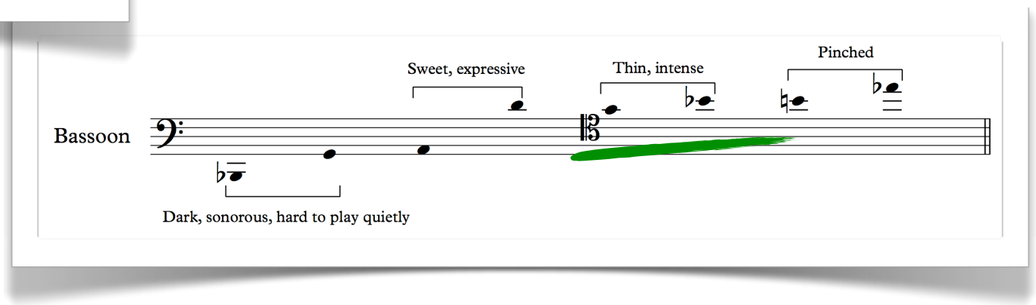
Color

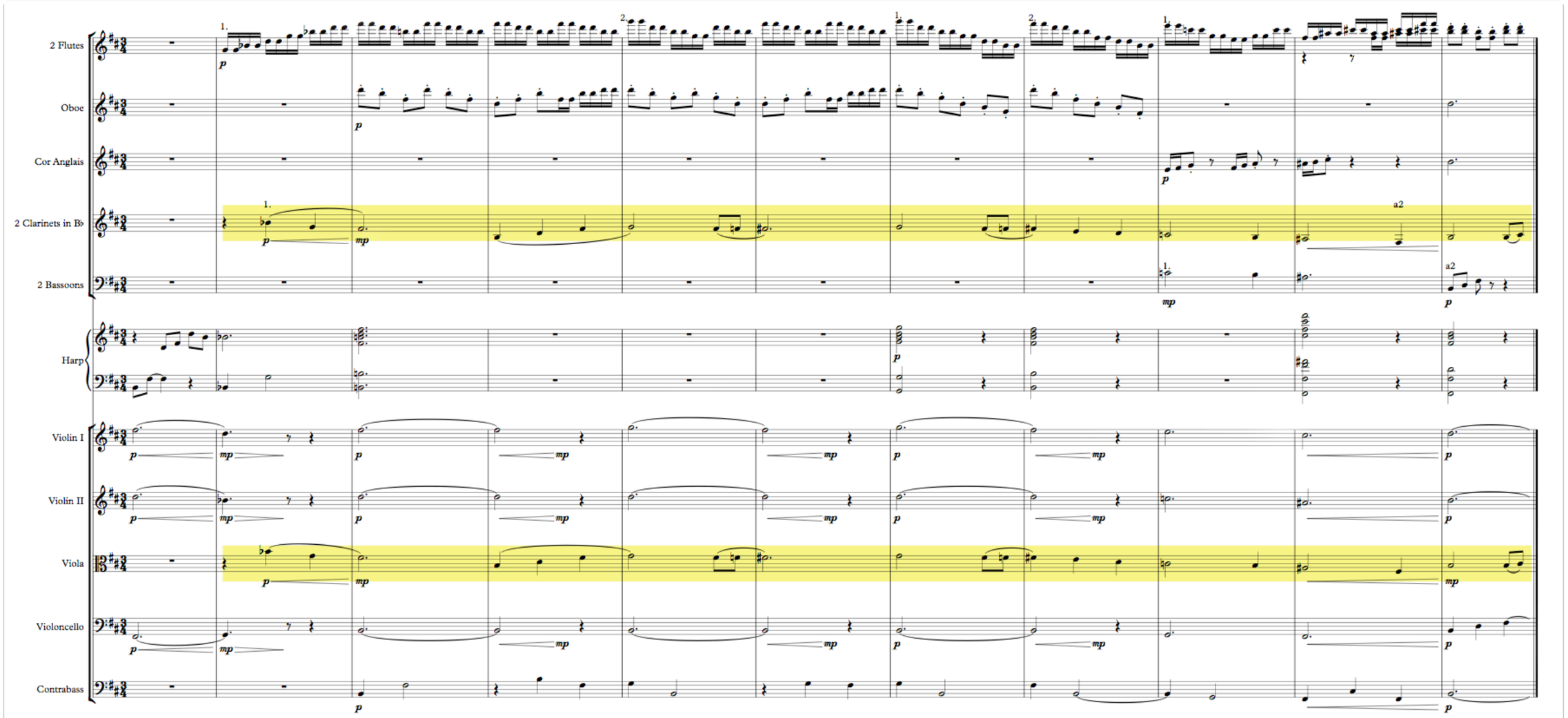




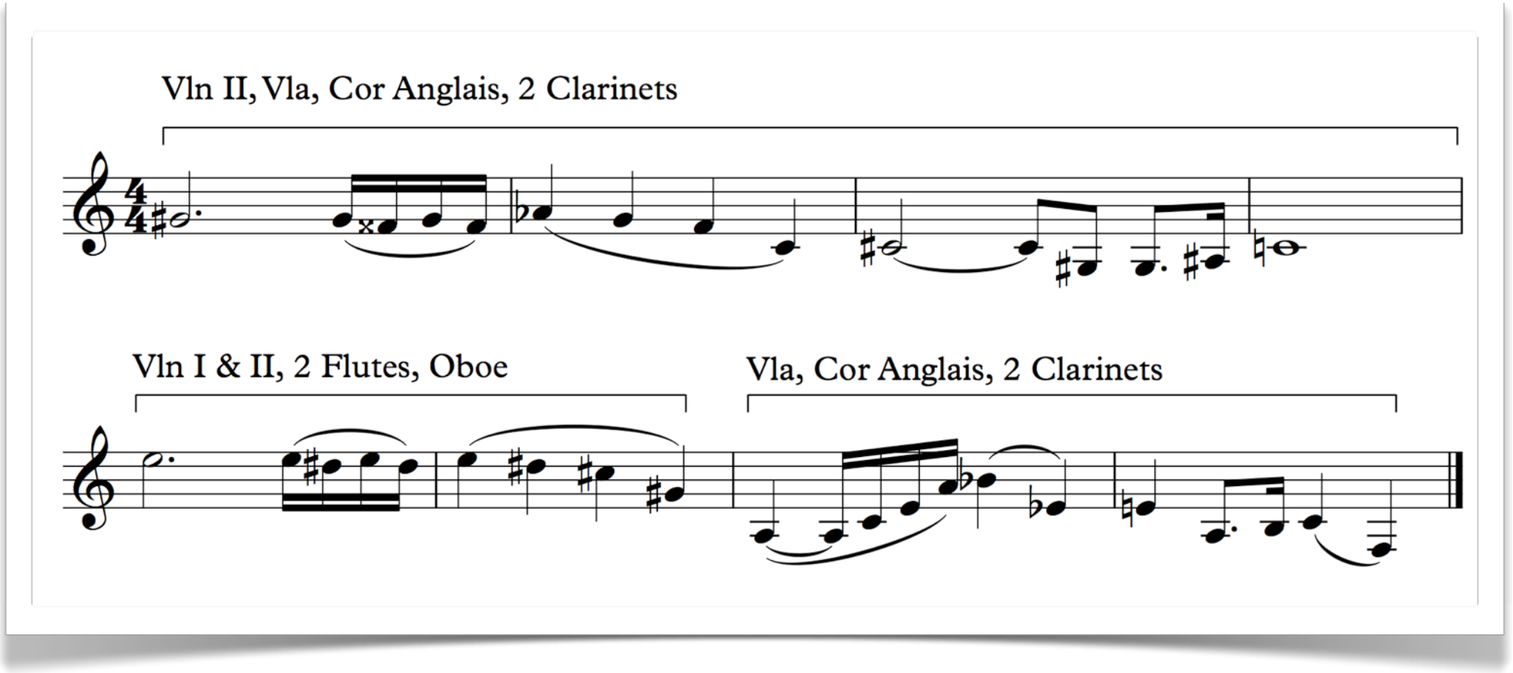


The Rite of Spring (Introduction) by Stravinsky

Combining Instruments



Combining Instruments



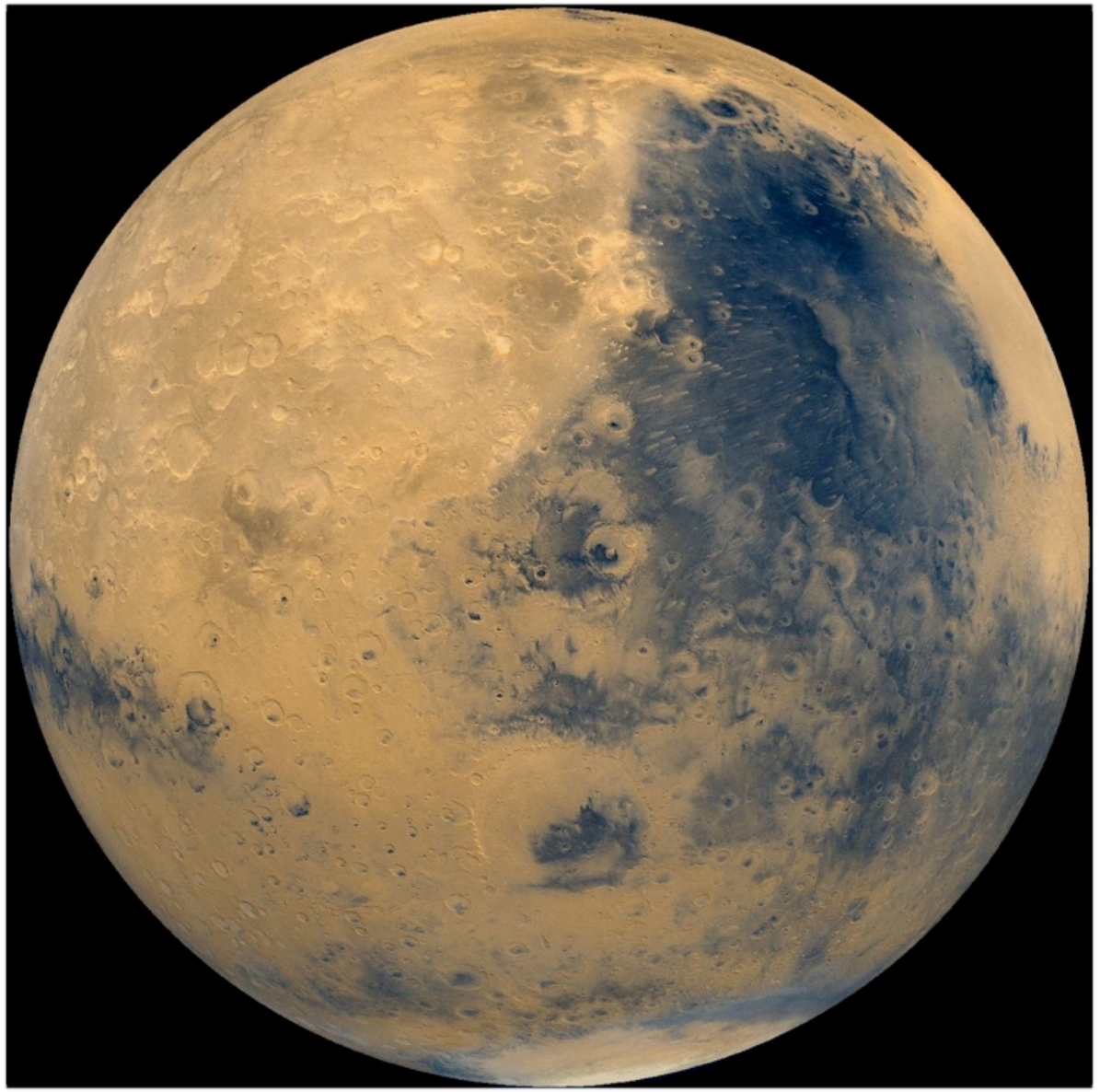
Council Chaos from *Judge Dredd* by Alan Silvestri

Combining Instruments

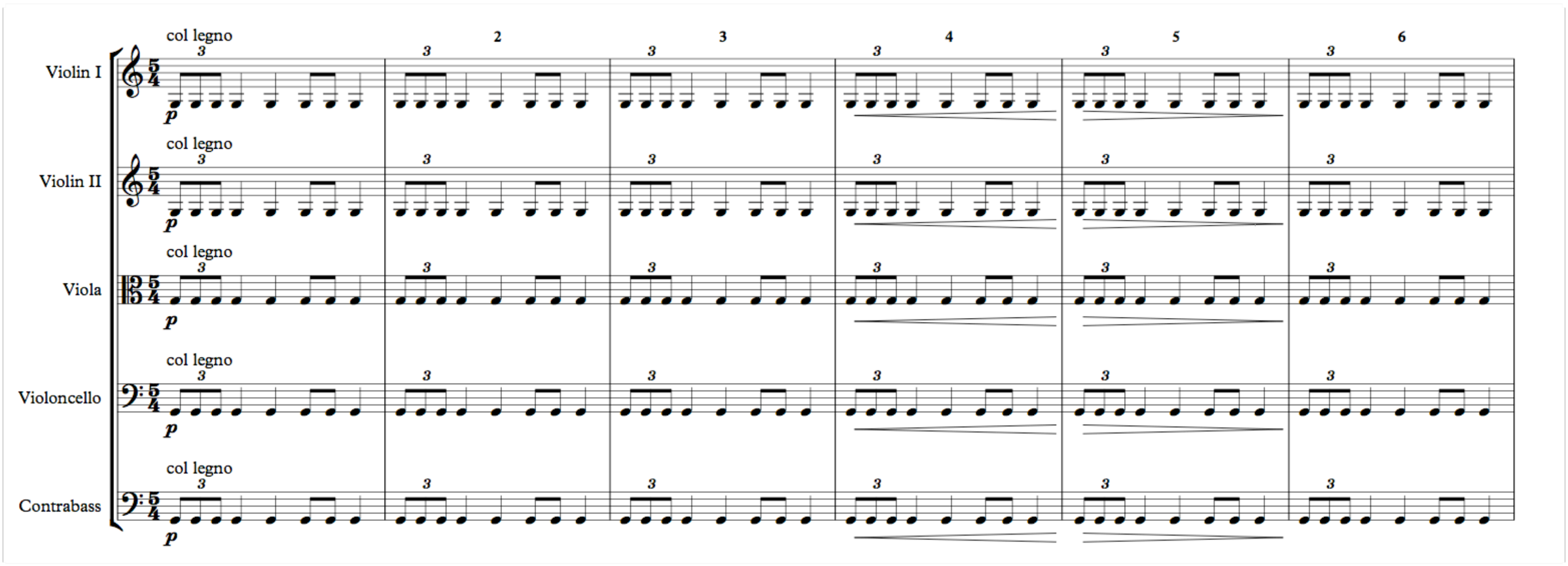
"Color is very important...
to orchestrate is like a thumbprint."

Bernard Herrmann

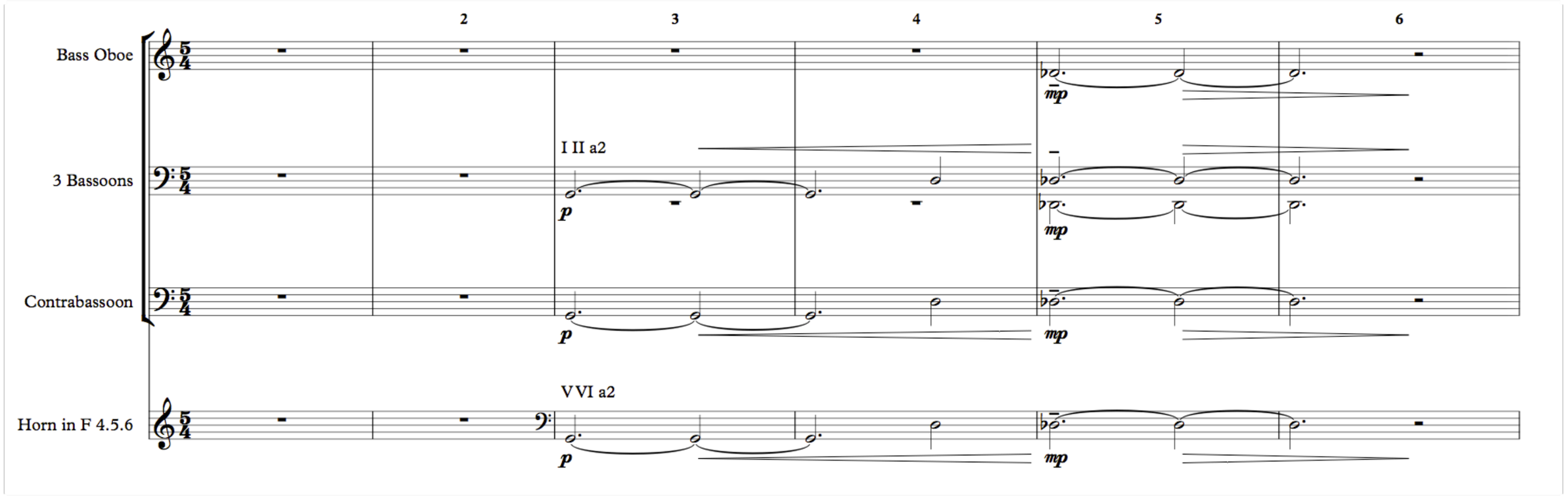
Brown, Royal S. *Overtones and Undertones: Reading Film Music*



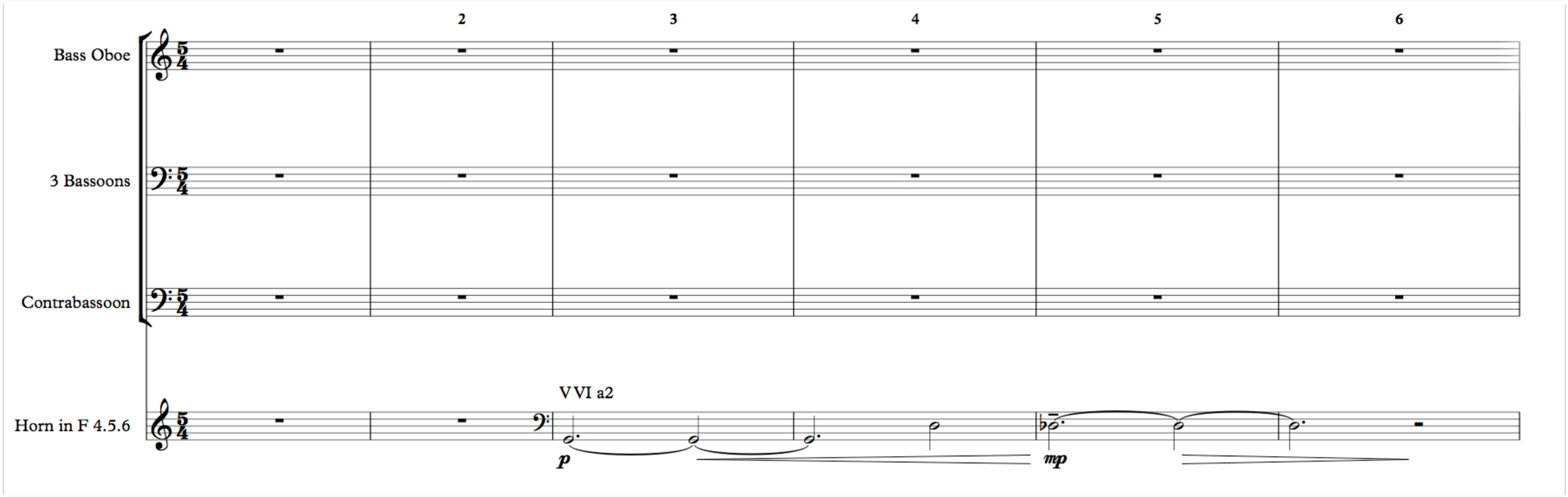
String Ostinato



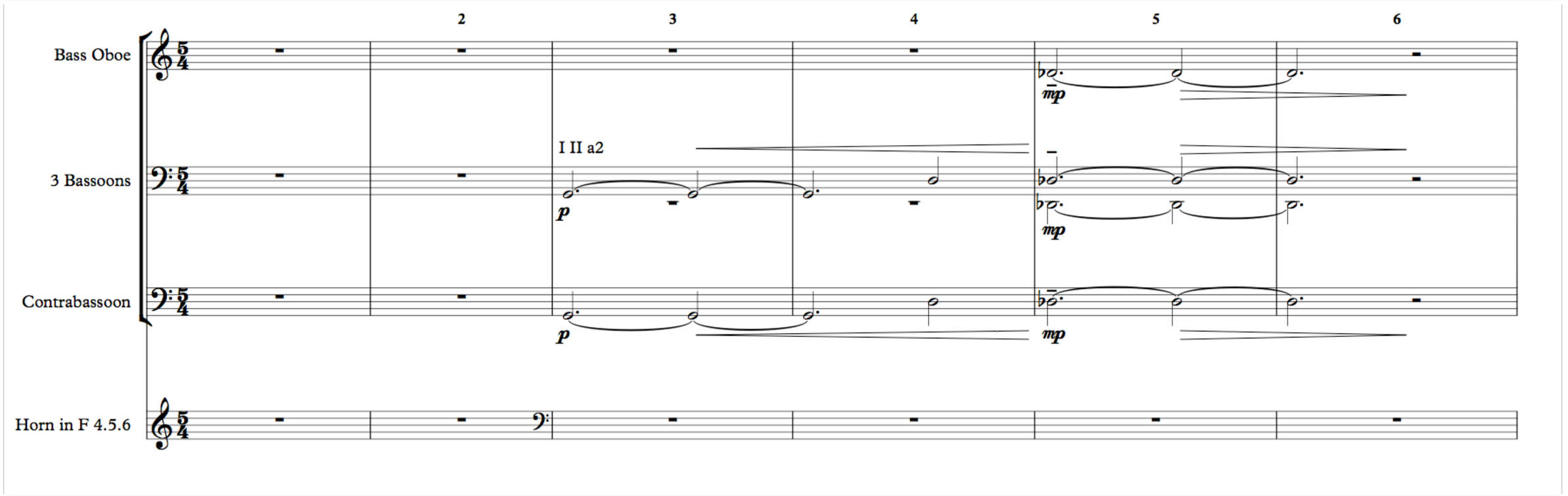
Opening Melodic Statement

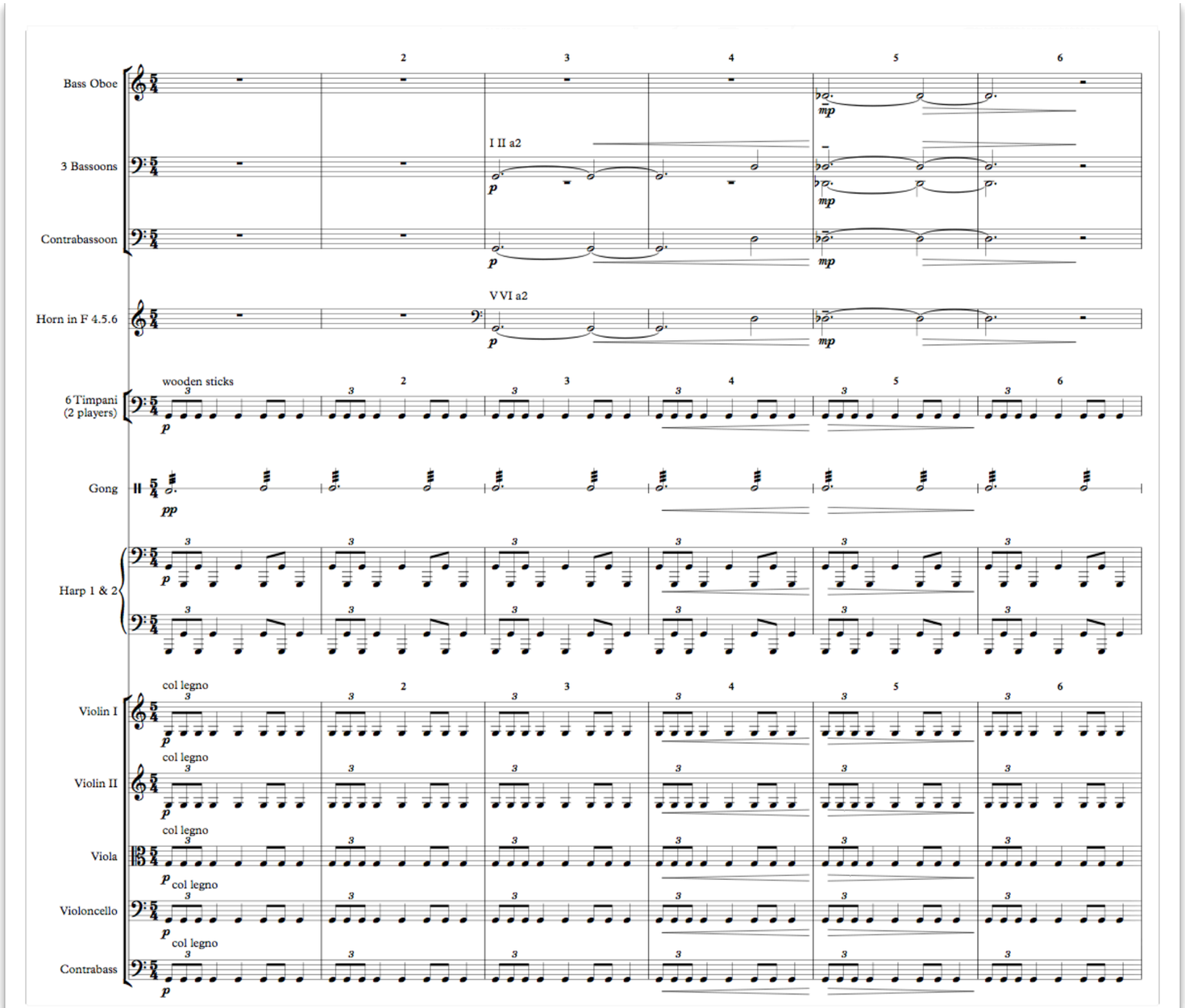


Opening Melodic Statement
Horns Only



Opening Melodic Statement
Woodwinds Only




Bass Oboe
3 Bassoons
I II a2
Contrabassoon
Horn in F 4.5.6
V VI a2
6 Timpani (2 players)
wooden sticks
Gong
Harp 1 & 2
Violin I
col legno
Violin II
Viola
Violoncello
Contrabass
2
3
4
5
6
p
mp
pp

Opening Melodic Statement
Stems by Family

MELODY - DOUBLE REEDS

MELODY - HORNS

OSTINATO - PERCUSSION

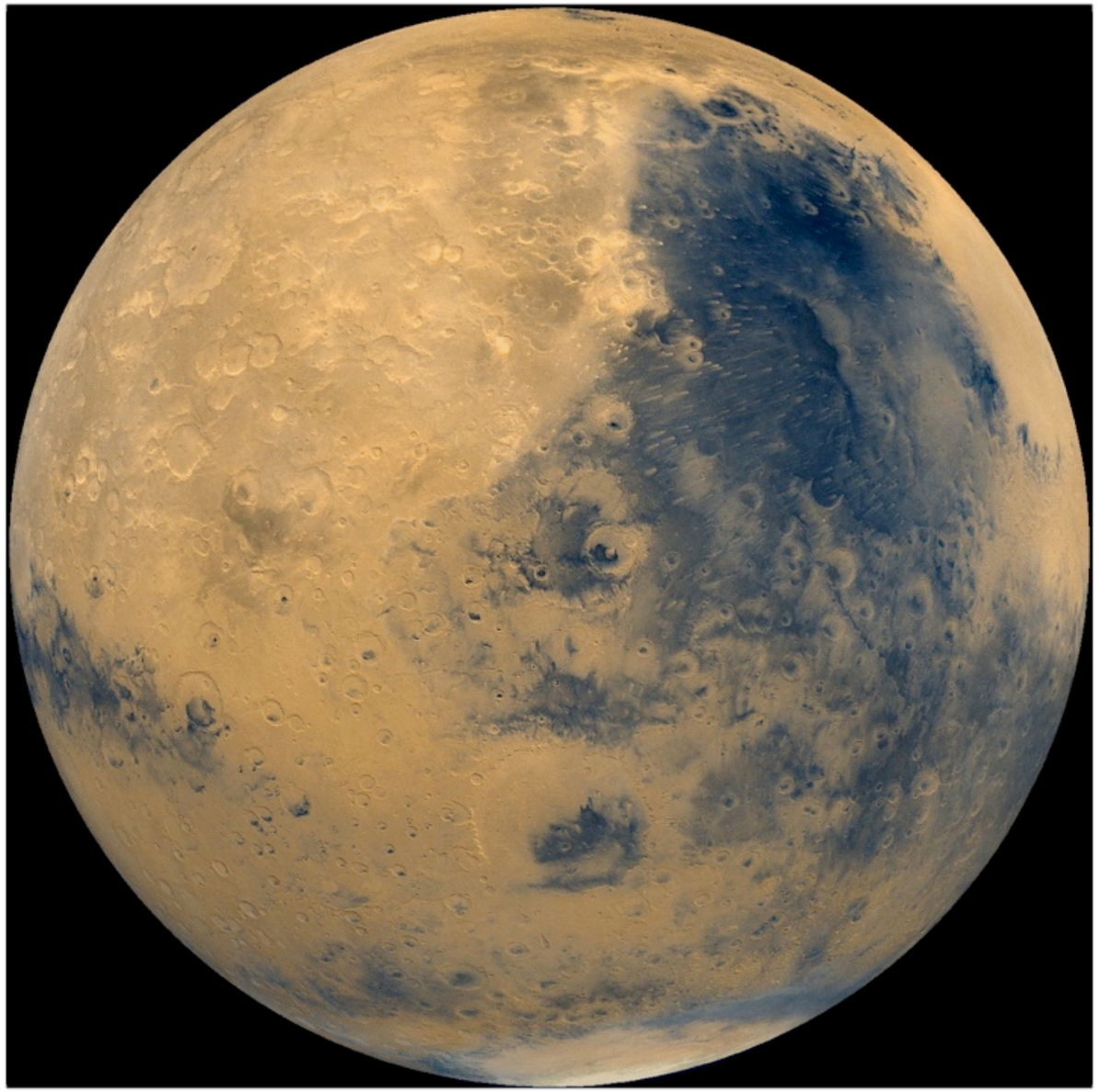
OSTINATO - STRINGS

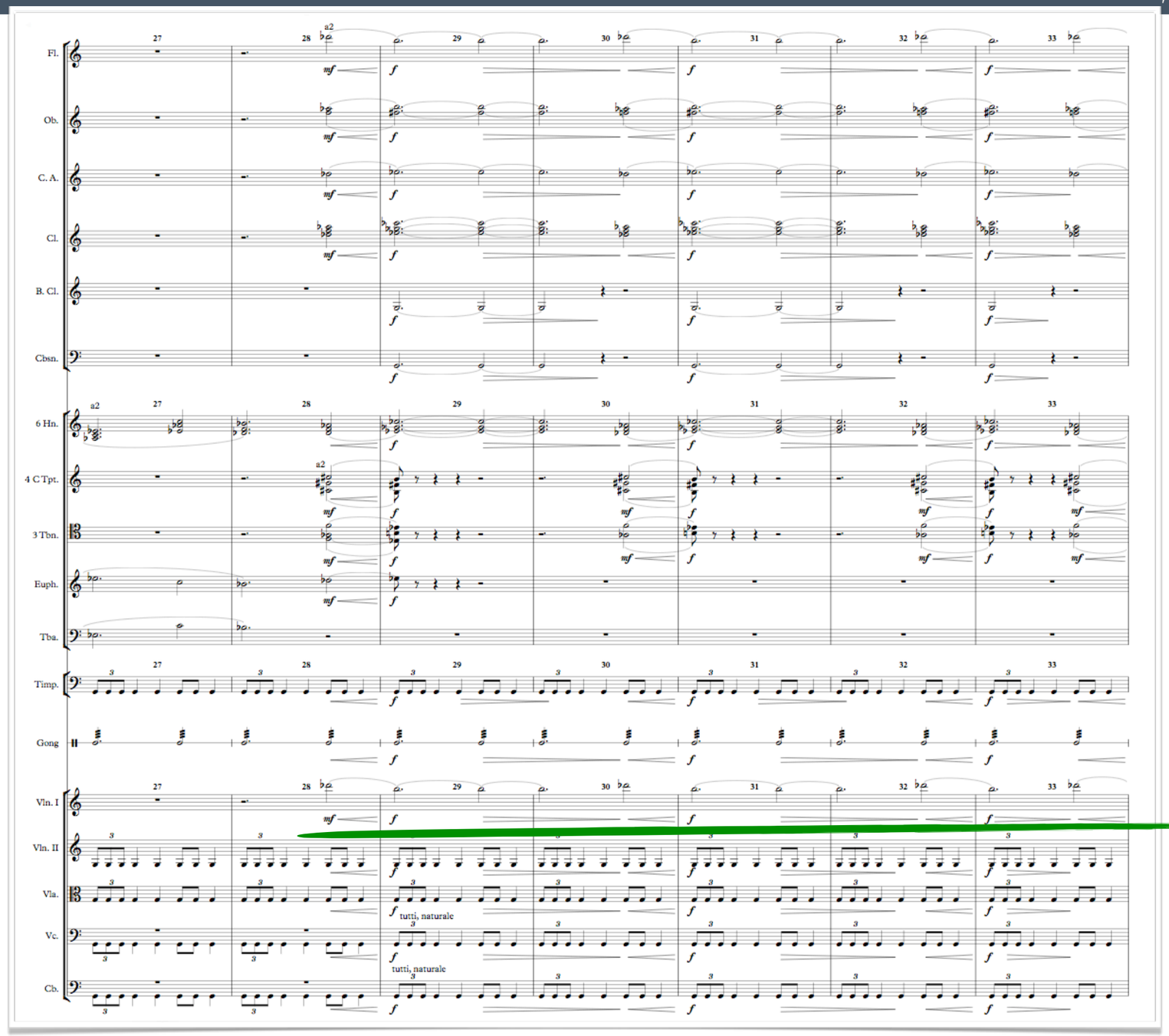
Opening Melodic Statement
Combined Wind & Brass Stem

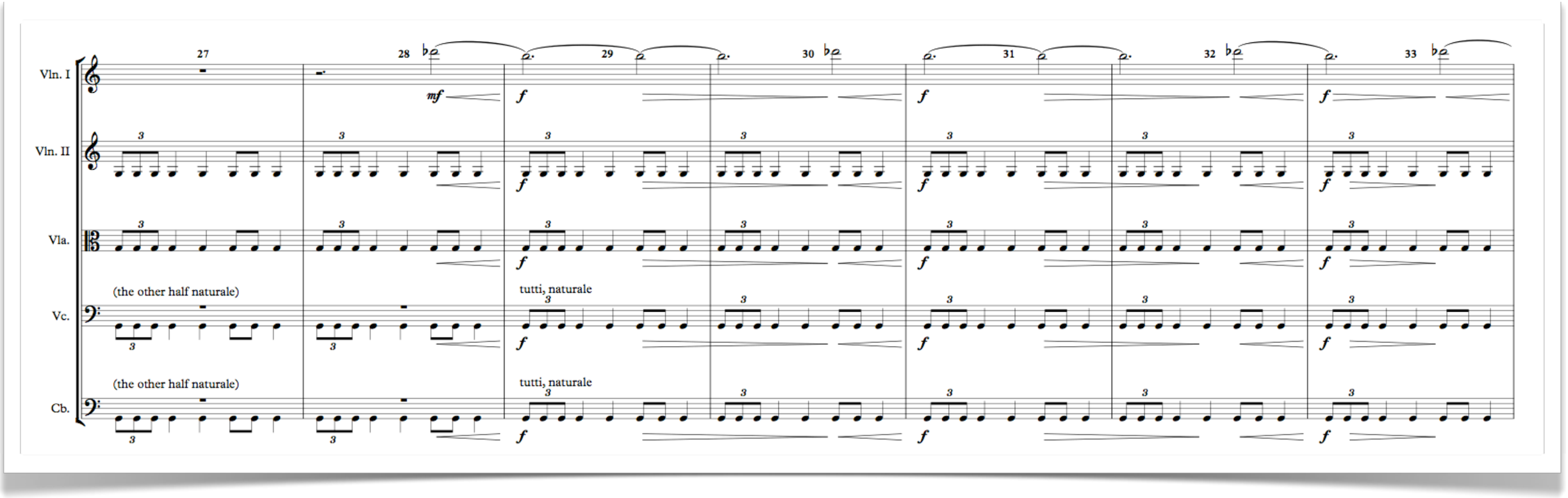
MELODY - DOUBLE REEDS & BRASS

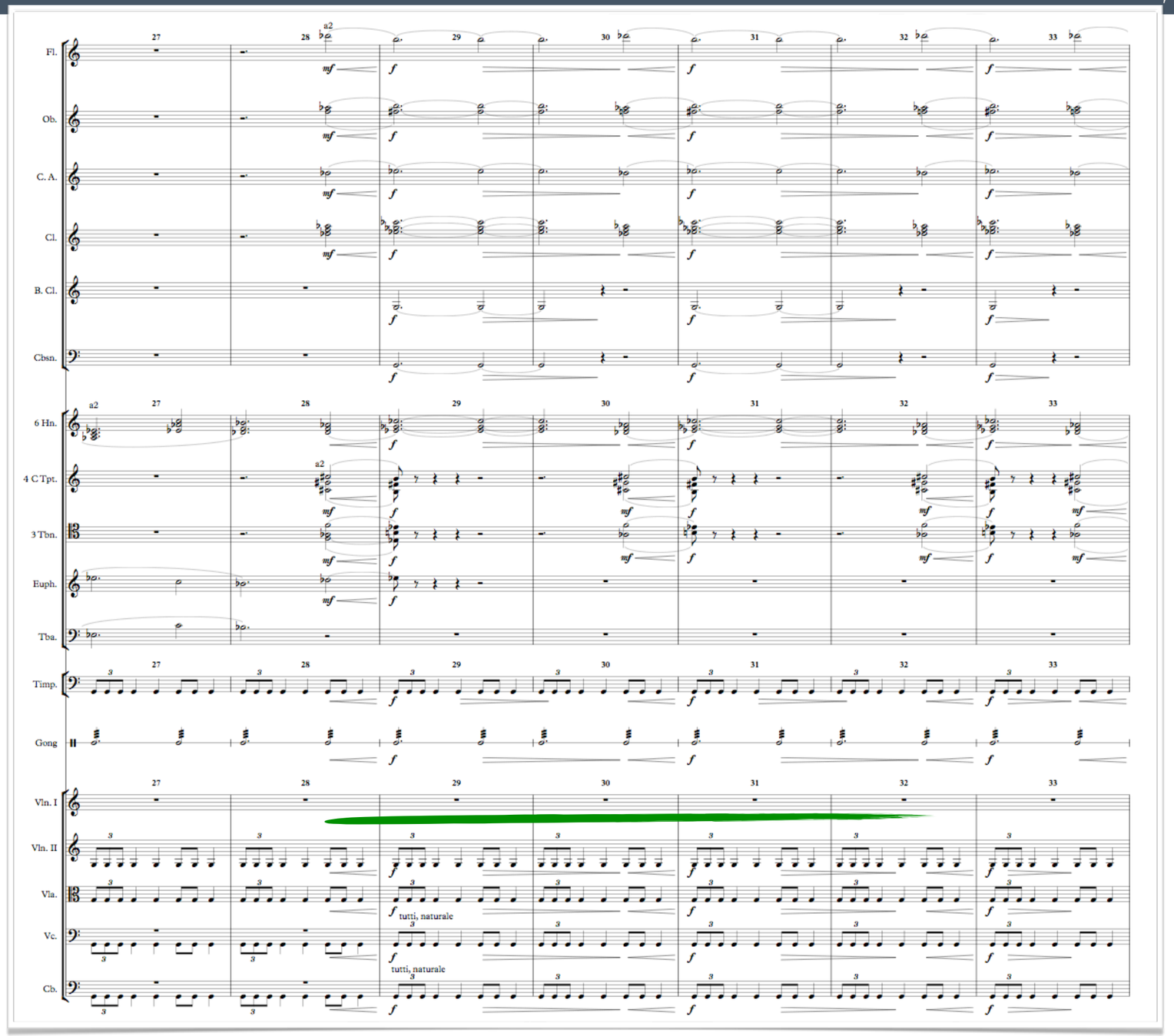
OSTINATO - PERCUSSION

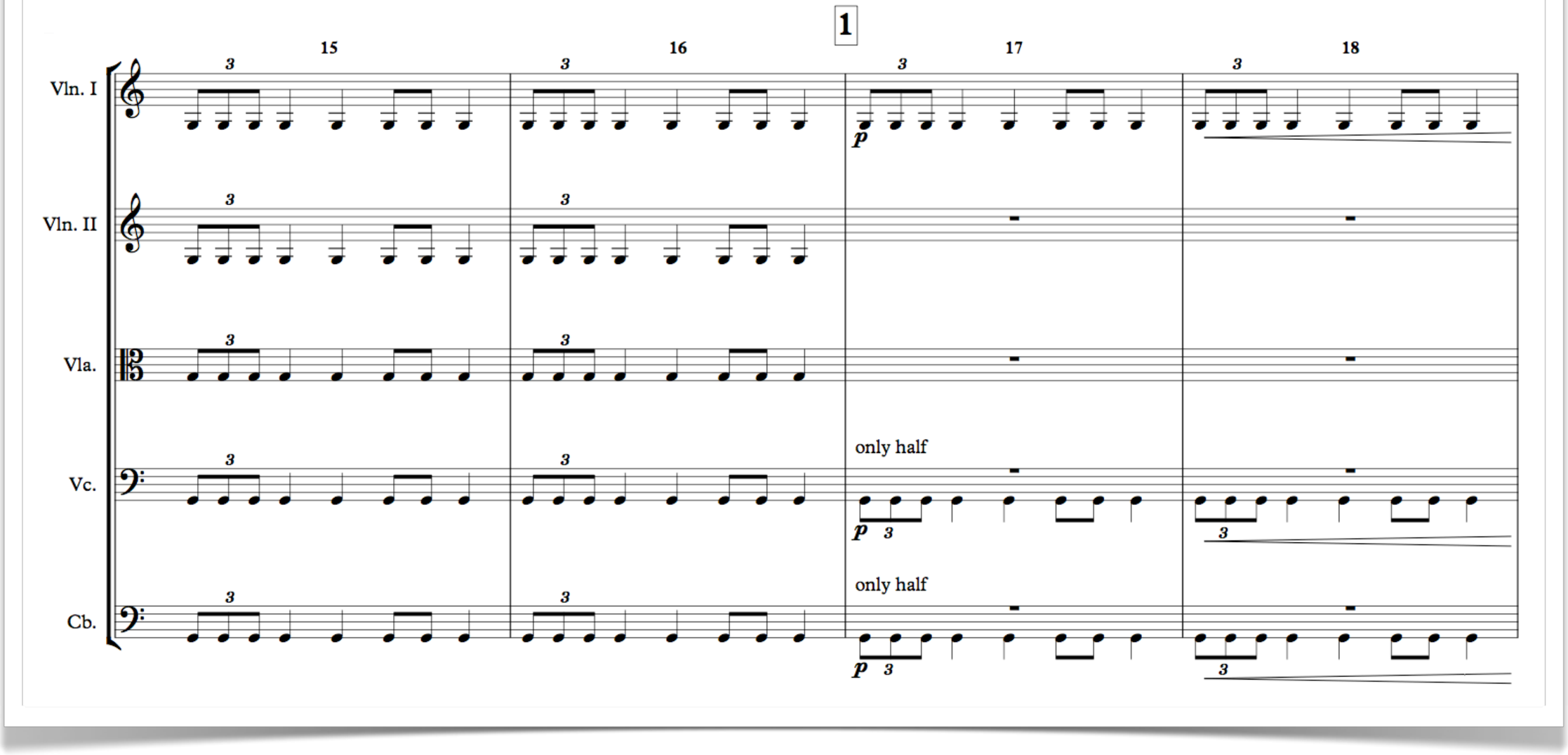
OSTINATO - STRINGS




Fl.
Ob.
C. A.
Cl.
B. Cl.
Cbsn.
6 Hn.
4 C Tpt.
3 Tbn.
Euph.
Tba.
Timp.
Gong
Vln. I
Vln. II
Vla.
Vc.
Cb.
a2
tutti, naturale
tutti, naturale


27
28
29
30
31
32
33
Vln. I
Vln. II
Vla.
Vc.
Cb.
mf
f
(the other half naturale)
tutti, naturale
(the other half naturale)
tutti, naturale


Fl.
Ob.
C. A.
Cl.
B. Cl.
Cbsn.
6 Hn.
4 C Tpt.
3 Tbn.
Euph.
Tba.
Timp.
Gong
Vln. I
Vln. II
Vla.
Vc.
Cb.
a2
tutti, naturale
tutti, naturale


1
15
16
17
18
Vln. I
Vln. II
Vla.
Vc.
Cb.
3
p
only half

23
24
25
26
Vln. I
Vln. II
Vla.
Vc.
Cb.
mf
naturale
mf cresc.
the other half naturale
3

WOODWINDS

BRASS

PERCUSSION

STRINGS

WOODWINDS & VIOLIN I

BRASS

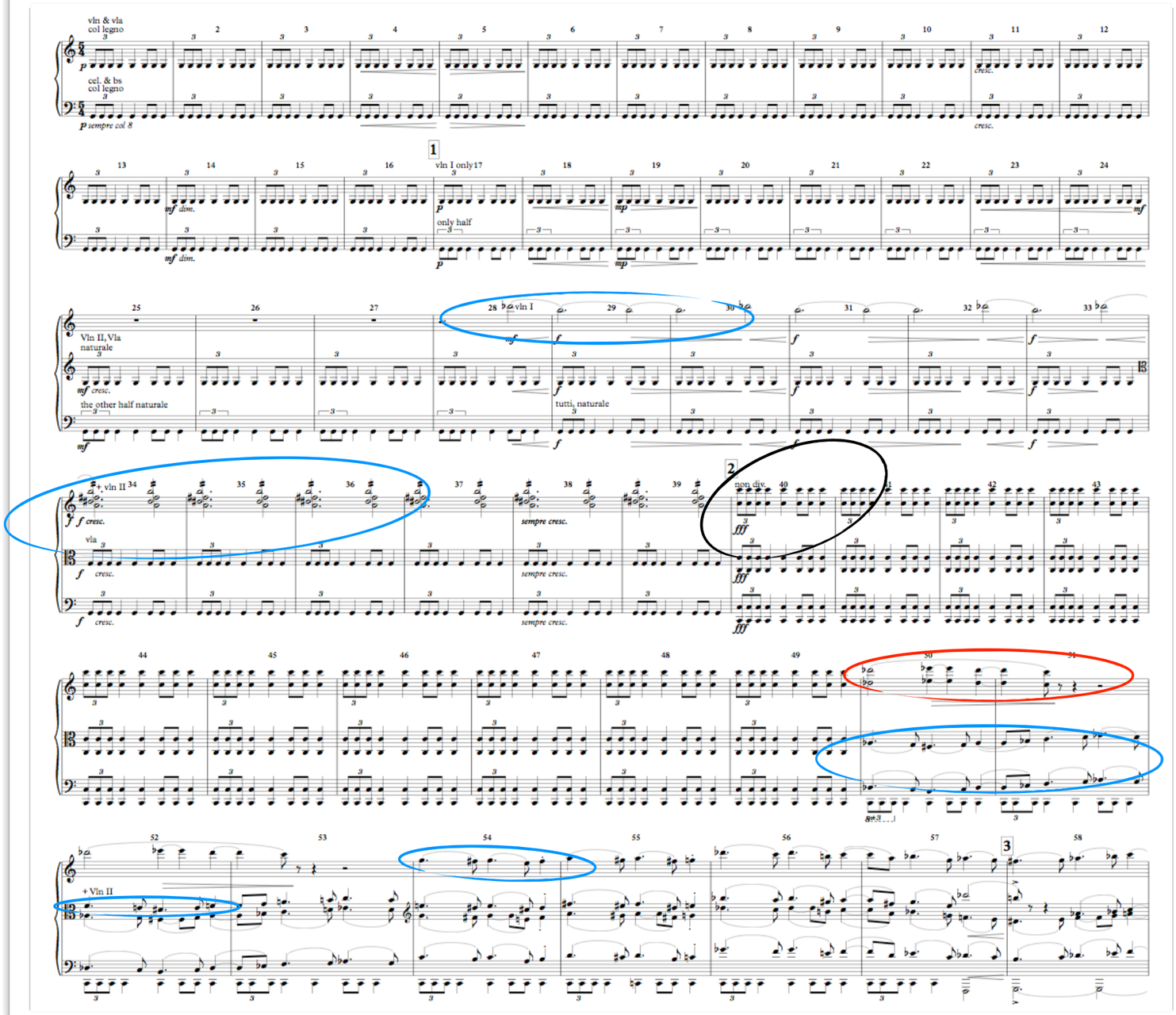
PERCUSSION

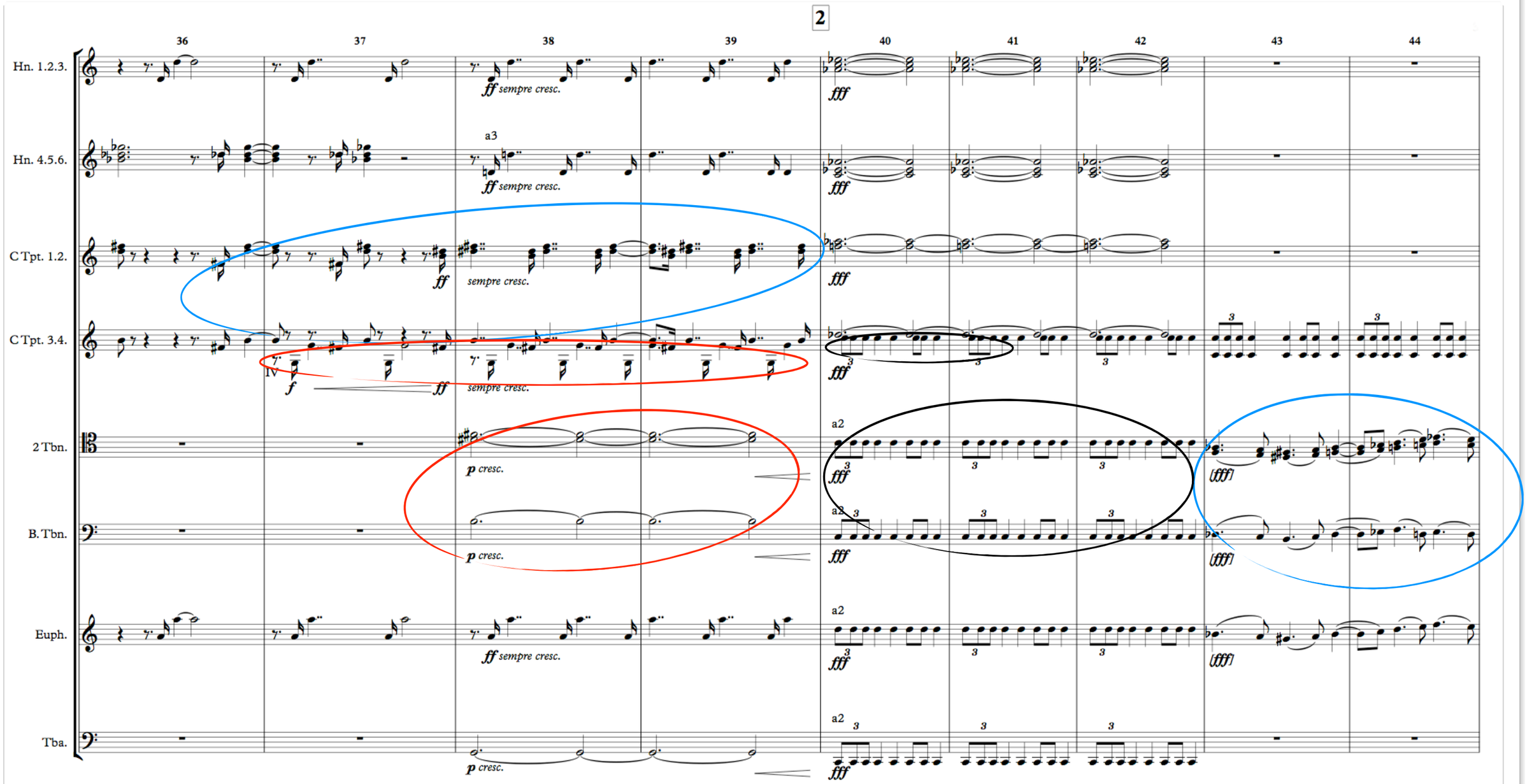
VIOLIN II, VIOLA, 'CELLI & BASSES

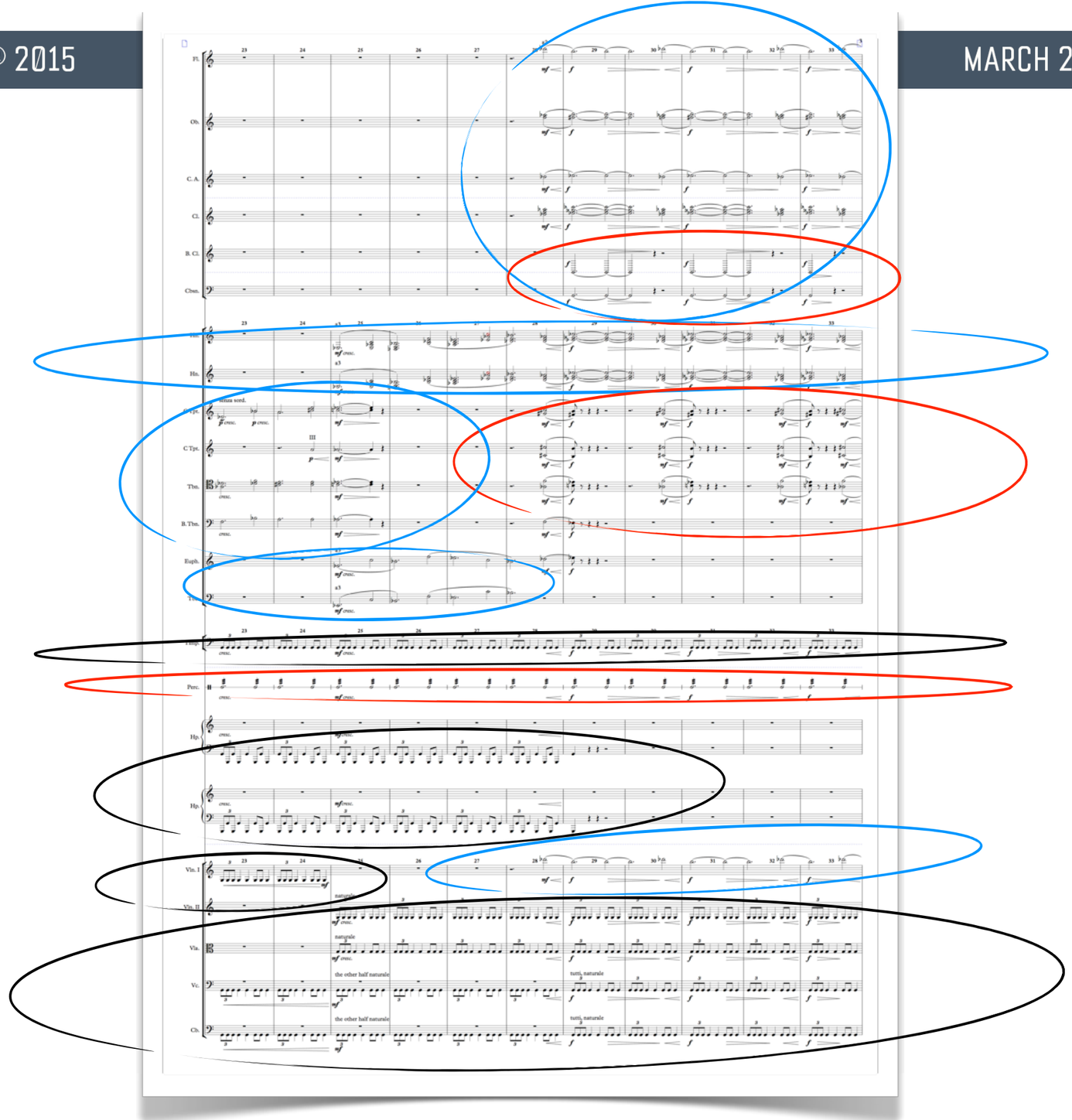
OSTINATO MOTION

MELODY

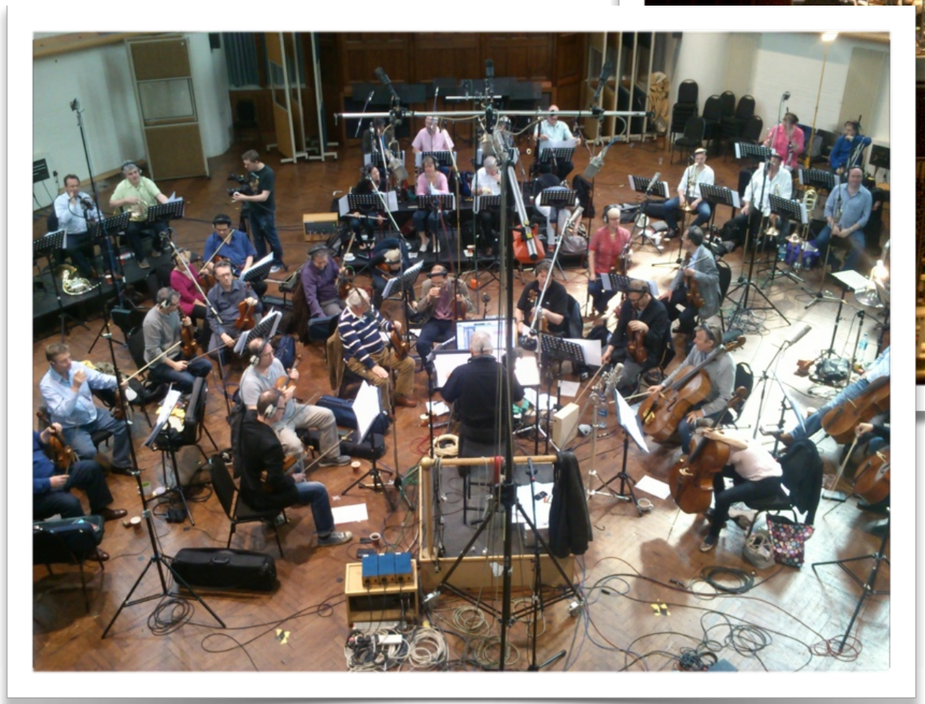
SWEETENER

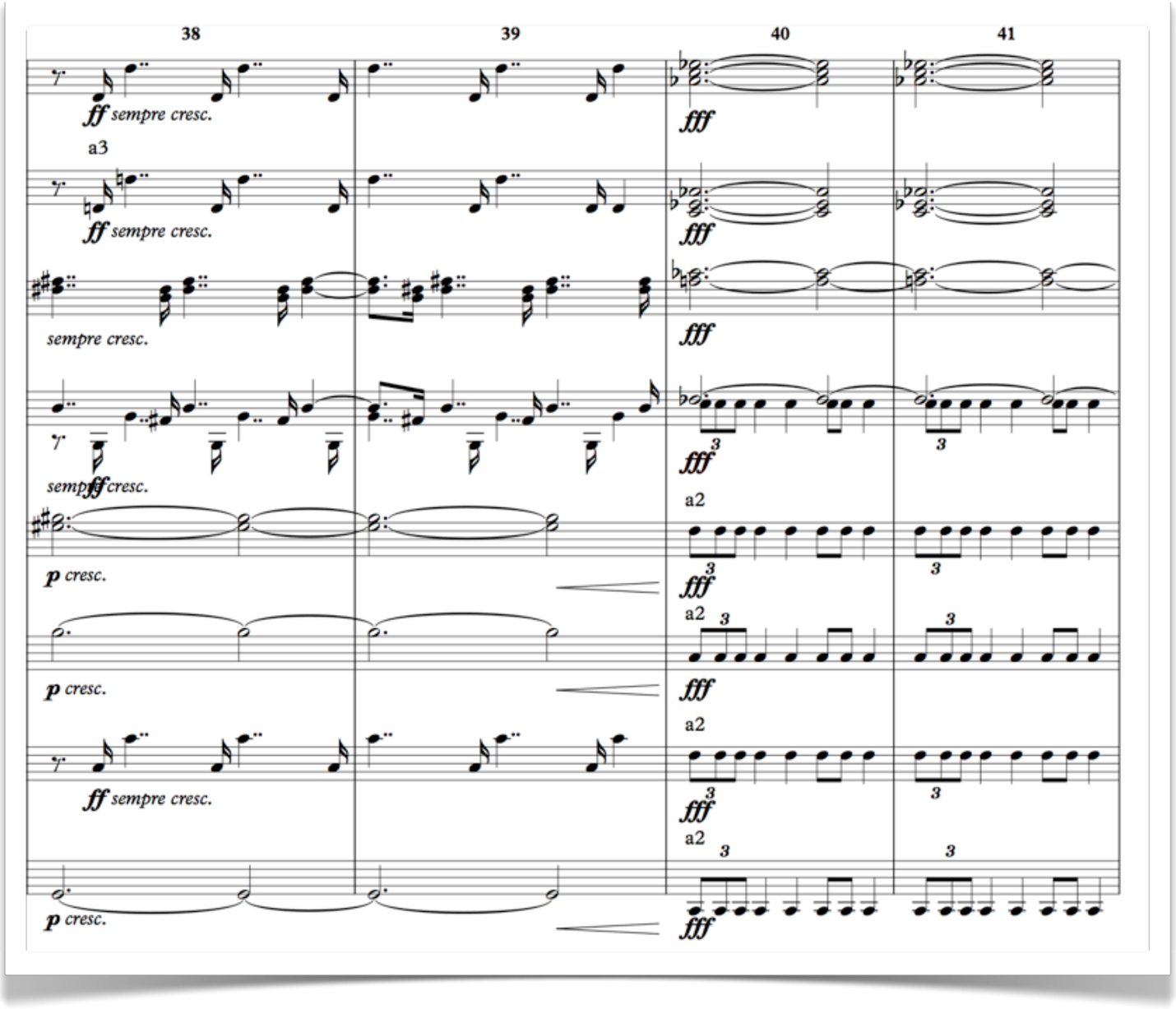

vln & vla
col legno
cel. & bs
col legno
p sempre col 8
cresc.
1
vln I only17
only half
mf dim.
mp
Vln II, Vla
naturale
the other half naturale
vln I
tutti, naturale
+ vln II
vla
sempre cresc.
2
non div.
fff
+ Vln II
3


2
36
37
38
39
40
41
42
43
44
Hn. 1.2.3.
Hn. 4.5.6.
C Tpt. 1.2.
C Tpt. 3.4.
2 Tbn.
B. Tbn.
Euph.
Tba.
a3
a2
ff sempre cresc.
fff
f
p cresc.
(fff)


Fl.
Ob.
C. A.
Cl.
B. Cl.
Cbsn.
Hn.
C Tpt.
Tbn.
B. Tbn.
Euph.
Timp.
Perc.
Hp.
Vln. I
Vln. II
Vla.
Vc.
Cb.
cresc.
a3
III
naturale
the other half naturale
tutti, naturale

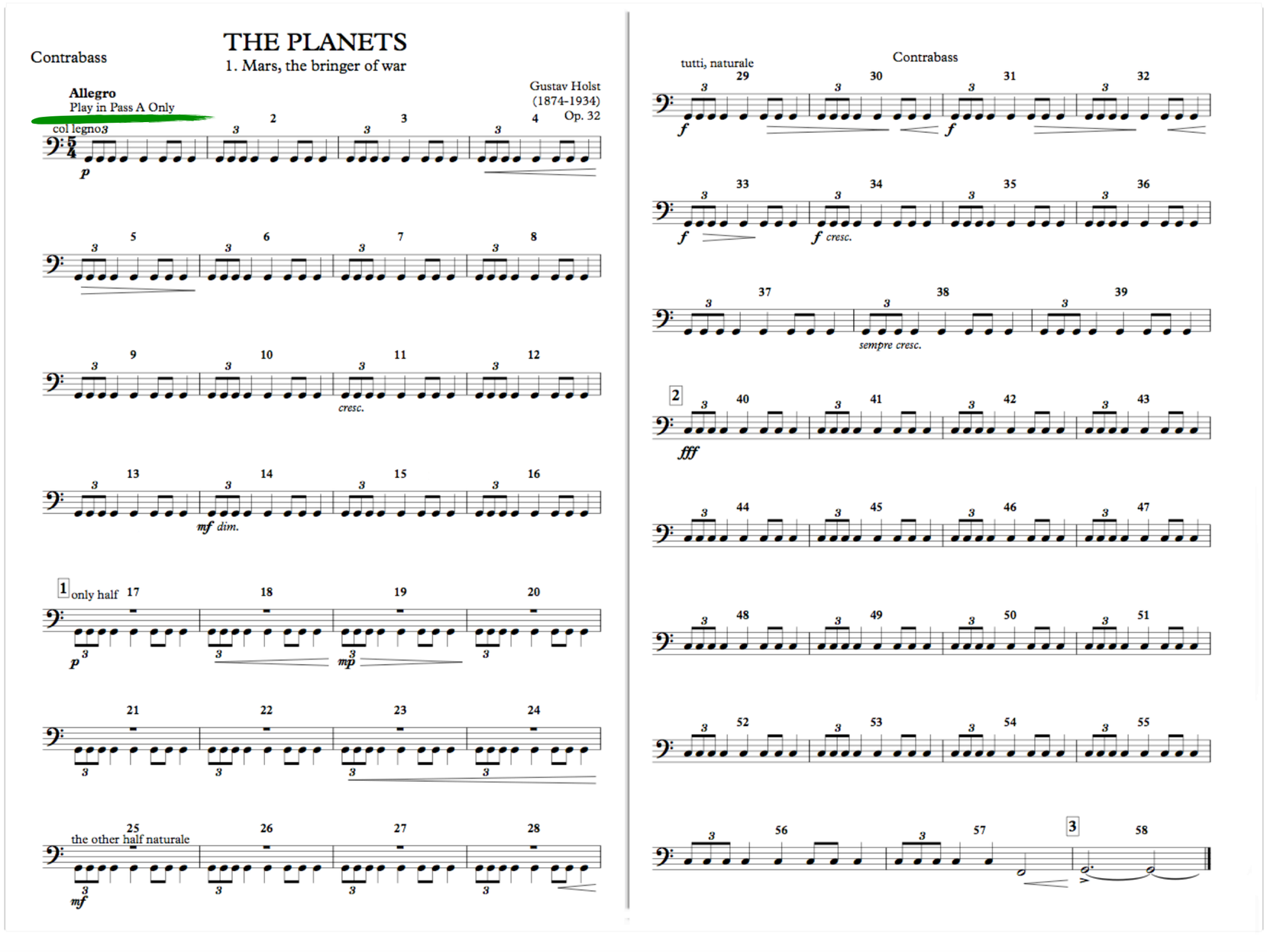
RECORDING

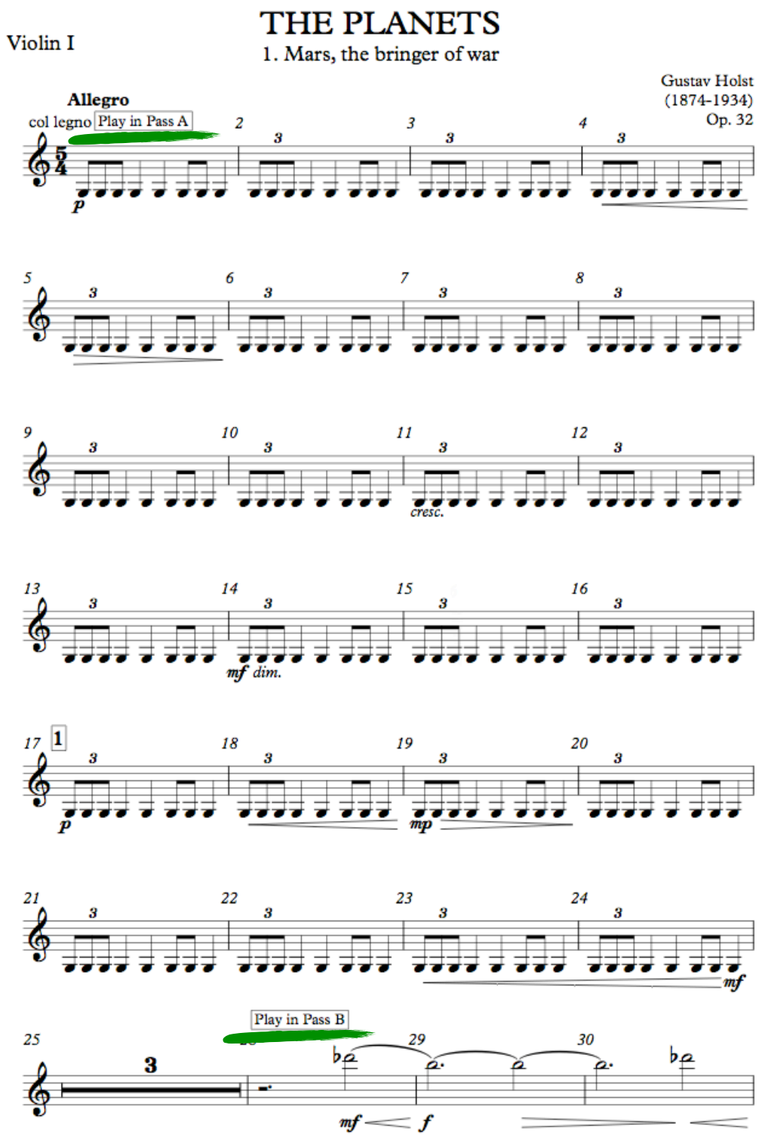


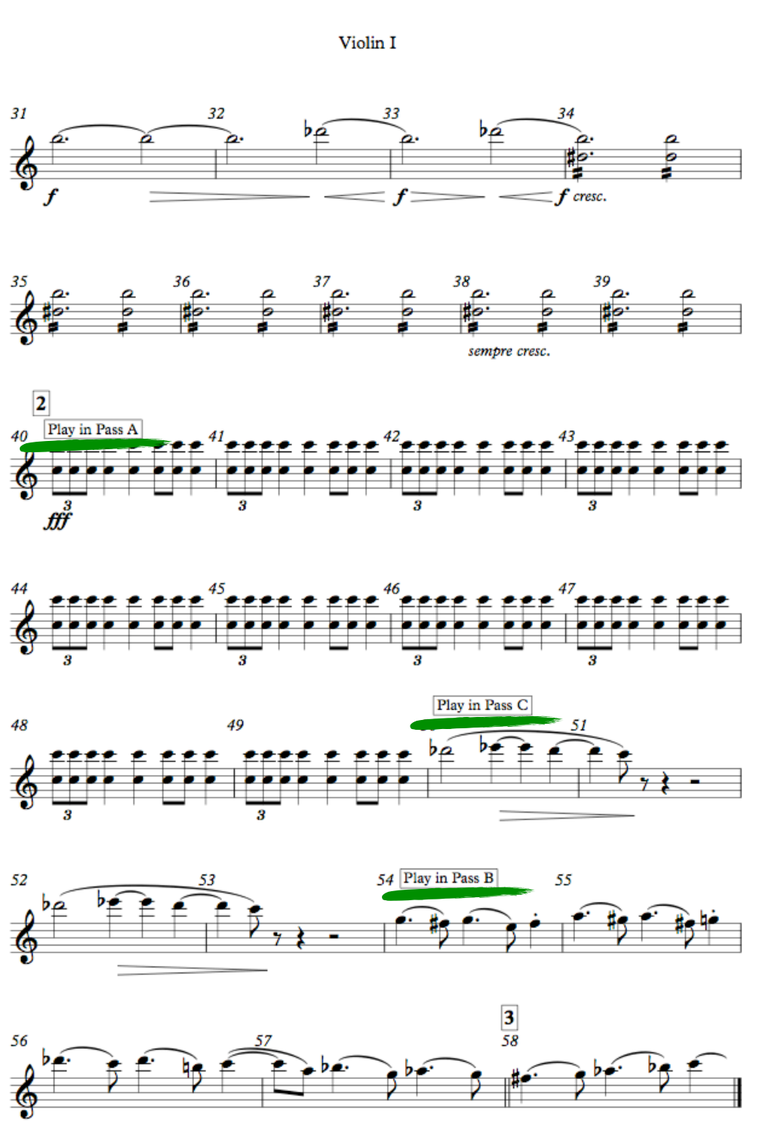

38
39
40
41
ff sempre cresc.
a3
fff
sempre cresc.
p cresc.
a2
3

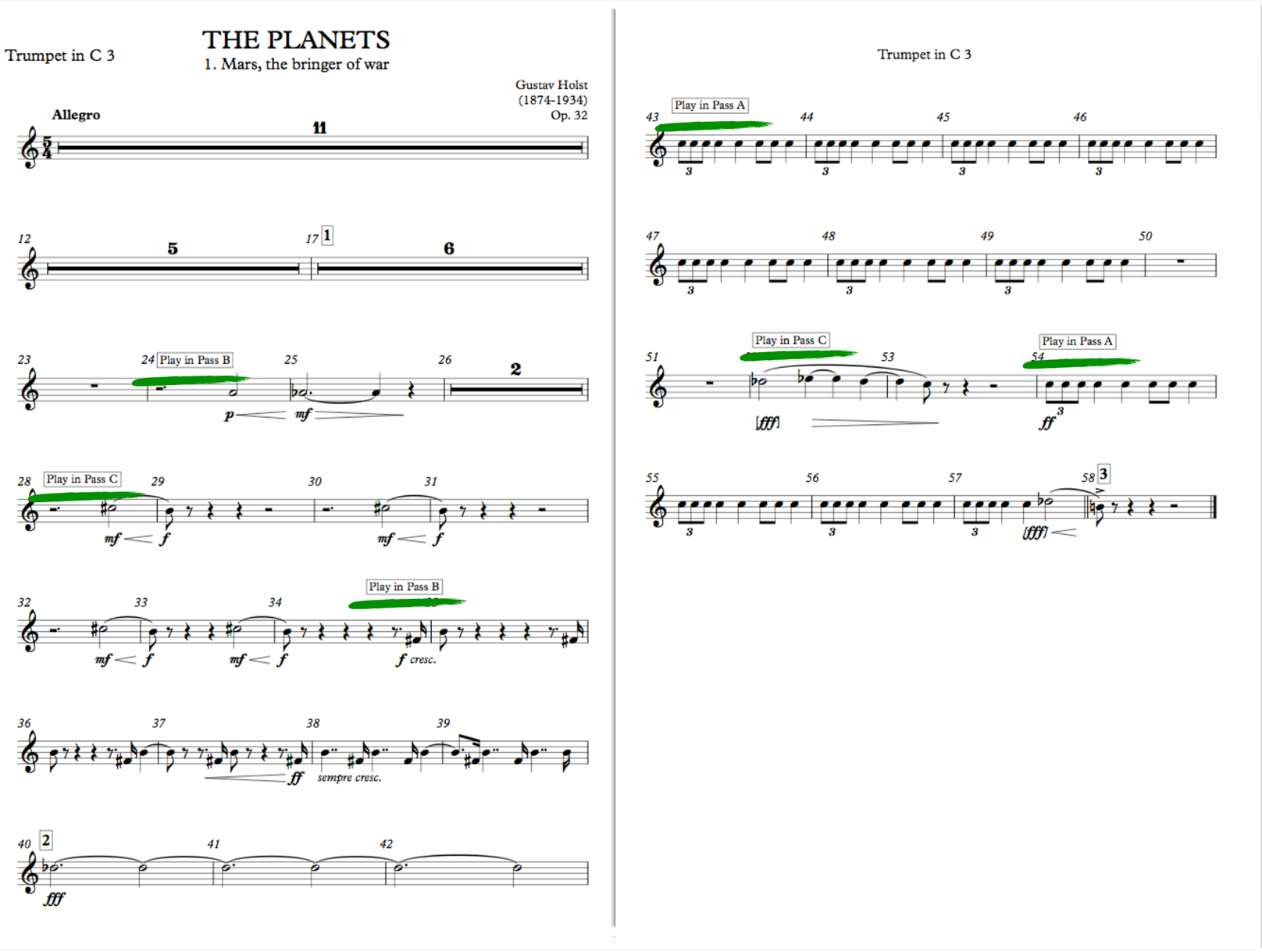
Parts Requirements

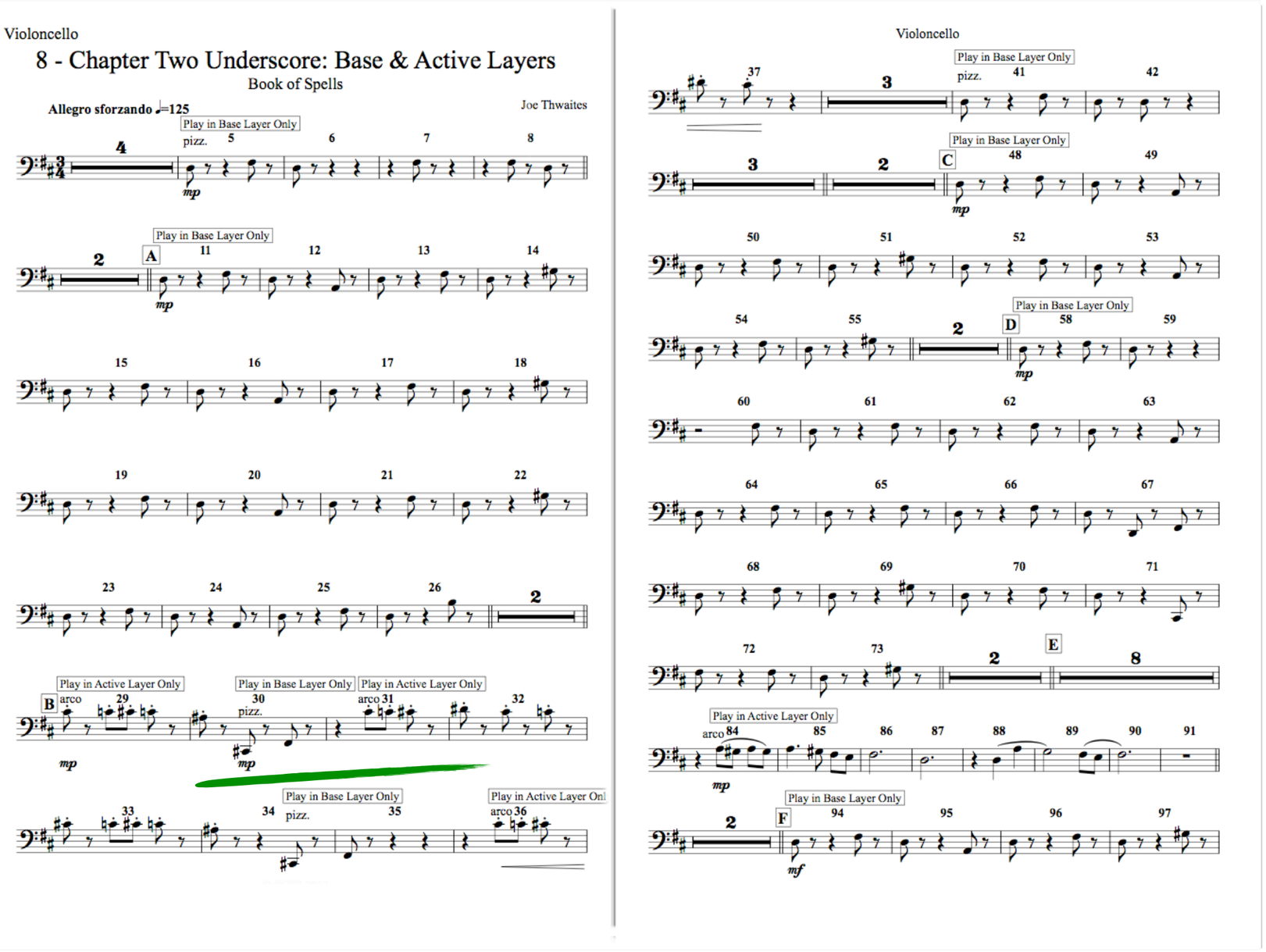
- Easy to Rehearse
- Obvious when to play
- Legible parts

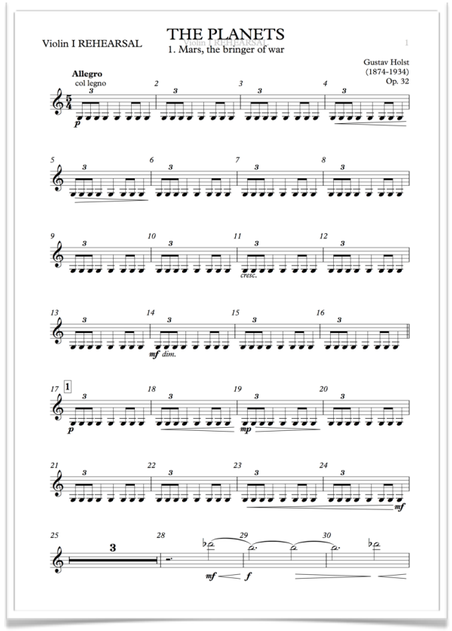

Contrabass
THE PLANETS
1. Mars, the bringer of war
Gustav Holst
(1874-1934)
Op. 32
Allegro
Play in Pass A Only
col legno
p
cresc.
mf dim.
1
only half
p
mp
the other half naturale
mf
tutti, naturale
Contrabass
f
f cresc.
sempre cresc.
2
fff
3

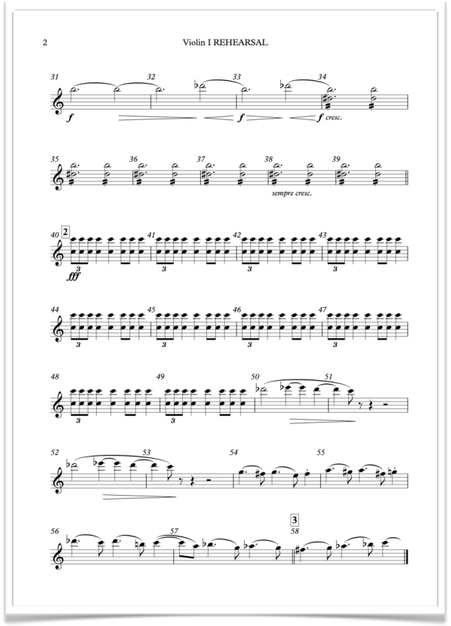

Violin I
THE PLANETS
1. Mars, the bringer of war
Gustav Holst
(1874-1934)
Op. 32
Allegro
col legno
Play in Pass A
Play in Pass B

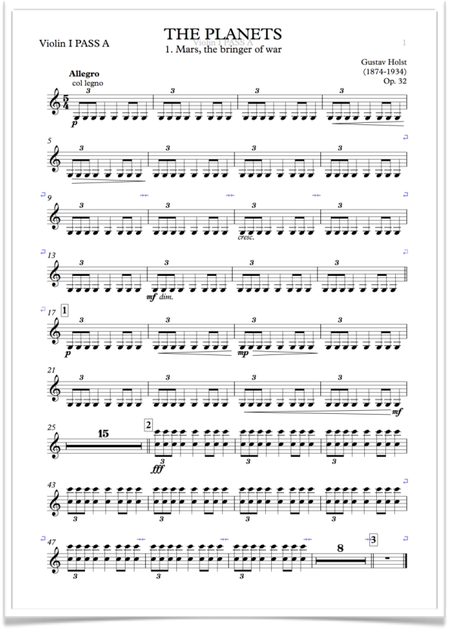

Violin I
sempre cresc.
Play in Pass A
Play in Pass C
Play in Pass B

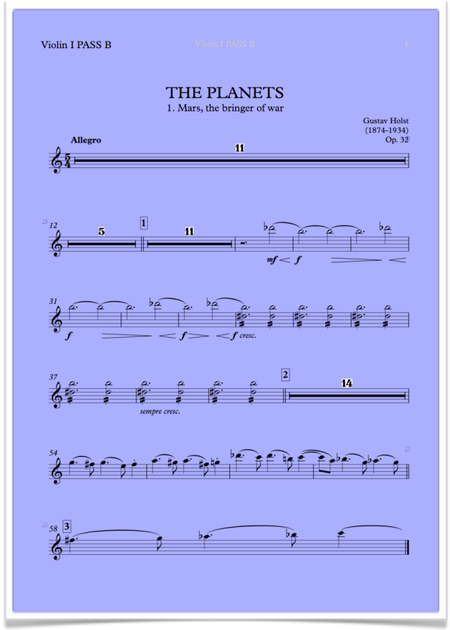

Trumpet in C 3
THE PLANETS
1. Mars, the bringer of war
Gustav Holst
(1874-1934)
Op. 32
Allegro
11
5
6
2
Play in Pass B
Play in Pass C
Play in Pass B
fff
Trumpet in C 3
Play in Pass A
Play in Pass C
Play in Pass A
3

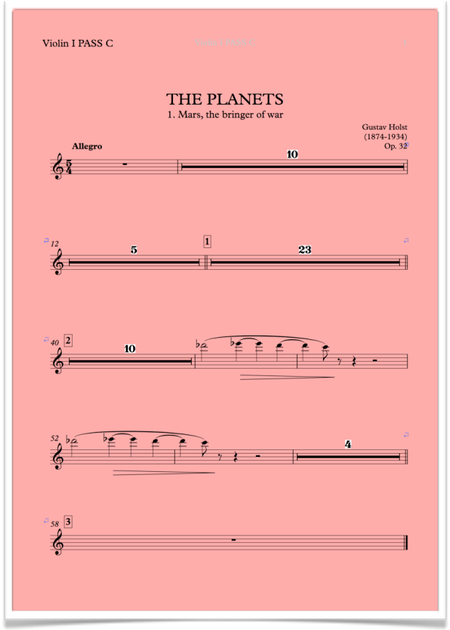

Violoncello
8 - Chapter Two Underscore: Base & Active Layers
Book of Spells
Allegro sforzando ♩=125
Joe Thwaites
Play in Base Layer Only
pizz.
Play in Active Layer Only
arco
Violoncello
Play in Base Layer Only
pizz.
Play in Base Layer Only
Play in Active Layer Only
arco
Play in Base Layer Only
Play in Base Layer Only
Play in Base Layer Only
Play in Active Layer Only
Play in Base Layer Only

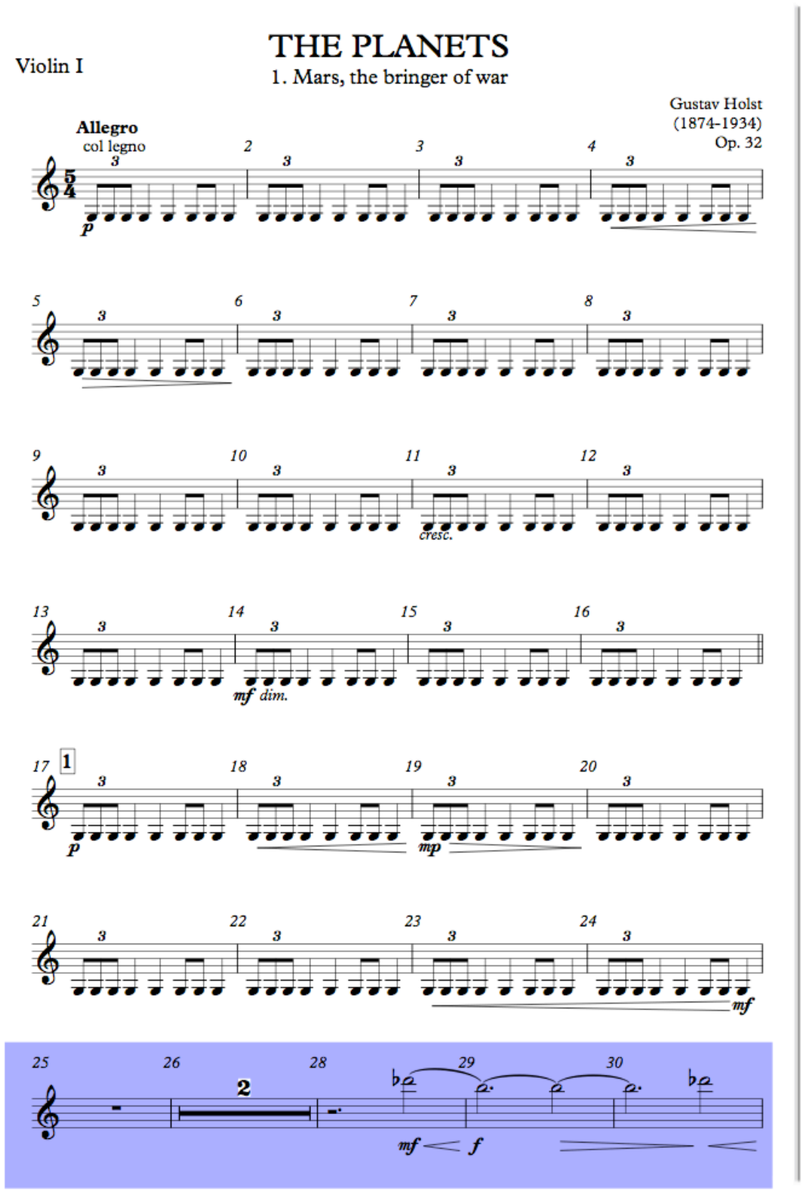

Violin I REHEARSAL
THE PLANETS
1. Mars, the bringer of war
Gustav Holst
(1874-1934)
Op. 32
Allegro
col legno

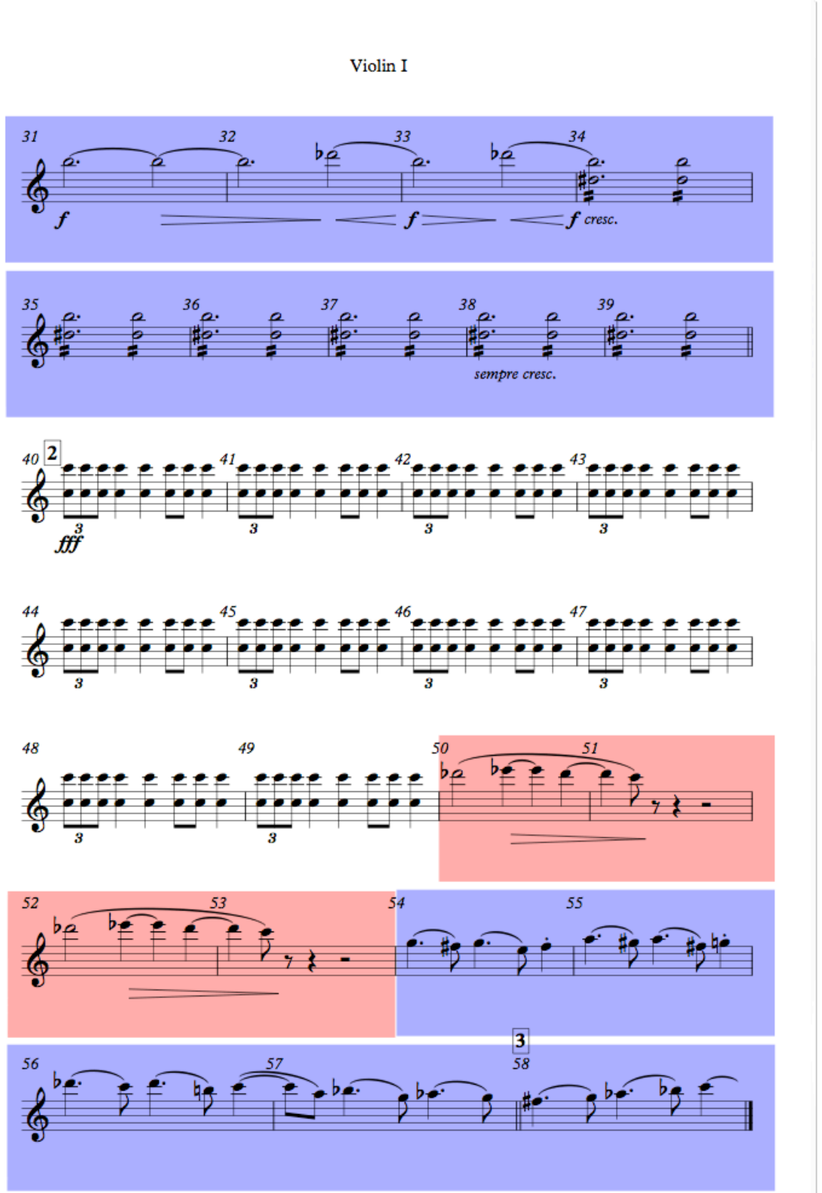

2
Violin I REHEARSAL


Violin I PASS A
THE PLANETS
1. Mars, the bringer of war
Gustav Holst
(1874-1934)
Op. 32
Allegro
col legno


Violin I PASS B
THE PLANETS
1. Mars, the bringer of war
Gustav Holst
(1874-1934)
Op. 32
Allegro


Violin I PASS C
THE PLANETS
1. Mars, the bringer of war
Gustav Holst
(1874-1934)
Op. 32
Allegro


Violin I
THE PLANETS
1. Mars, the bringer of war
Gustav Holst
(1874-1934)
Op. 32
Allegro
col legno
p
cresc.
mf dim.
p
mp
mf
mf f

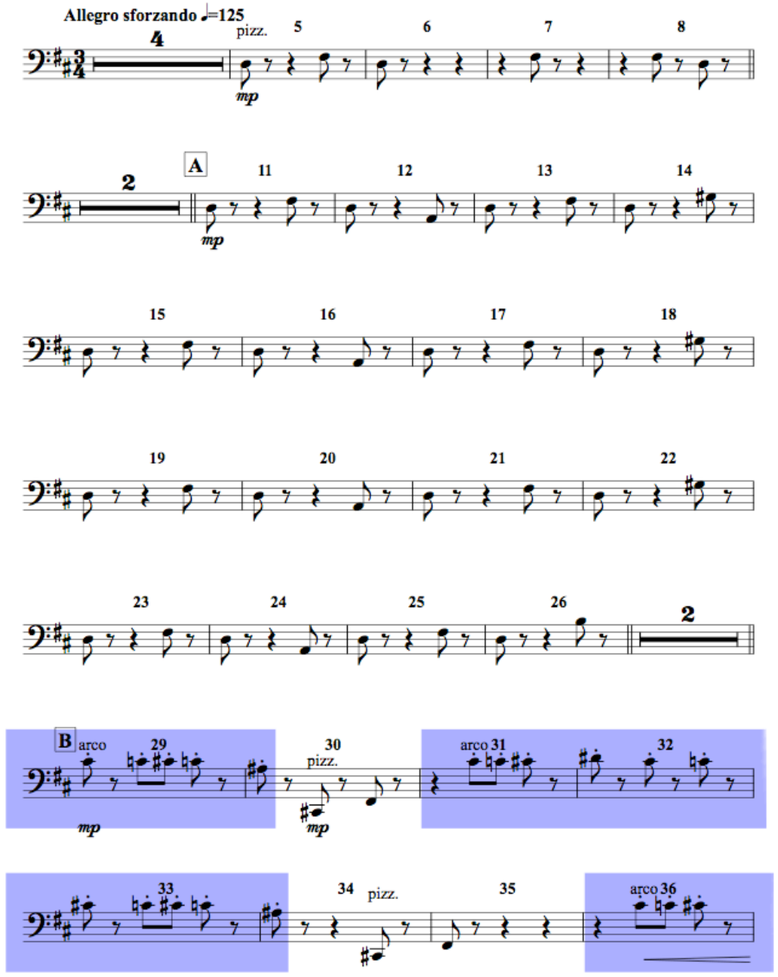

Violin I
f
f
f cresc.
sempre cresc.
fff

Violoncello

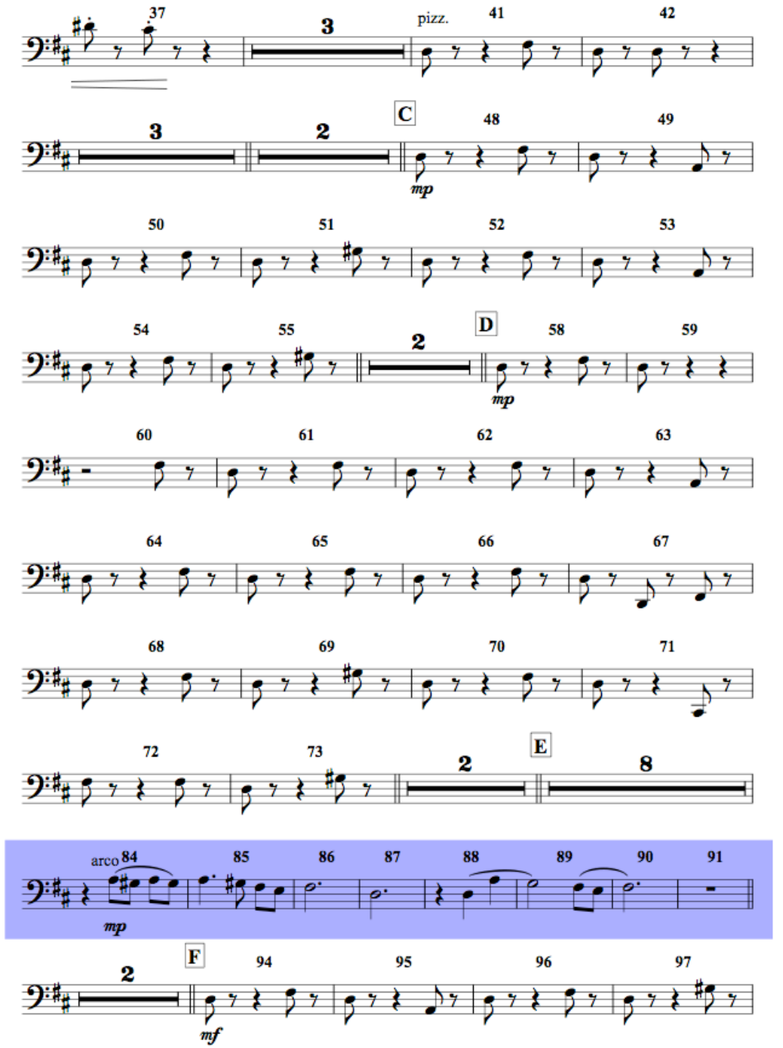
8 - Chapter Two Underscore: Base & Active Layers

Book of Spells

Joe Thwaites

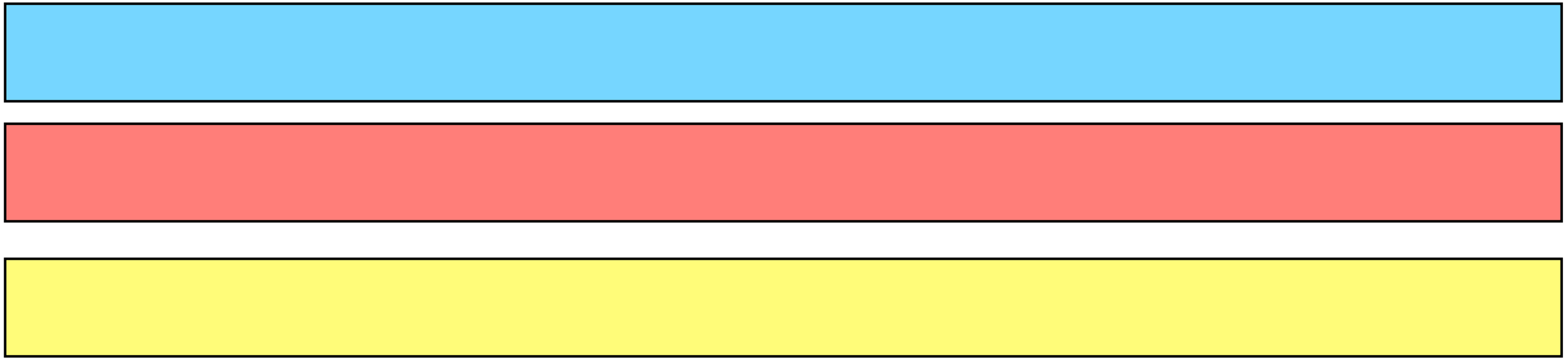


Violoncello

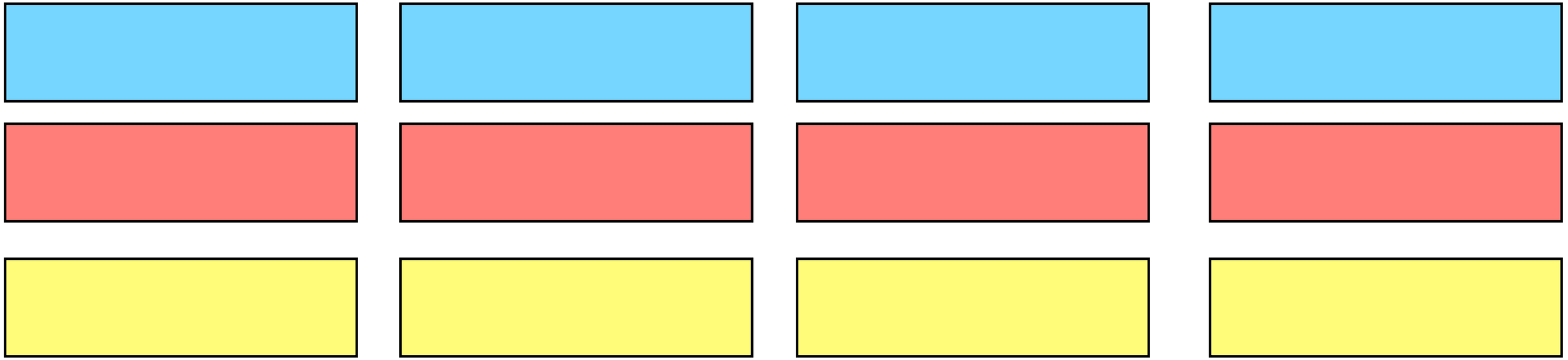


MIXING

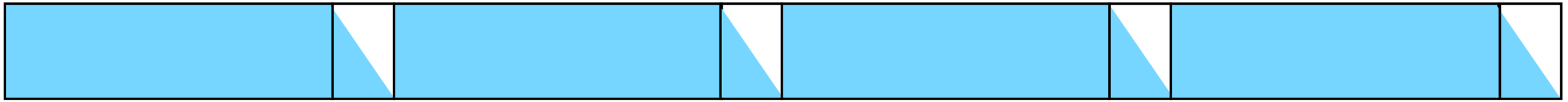
Vertical Layers & Horizontal Chunks



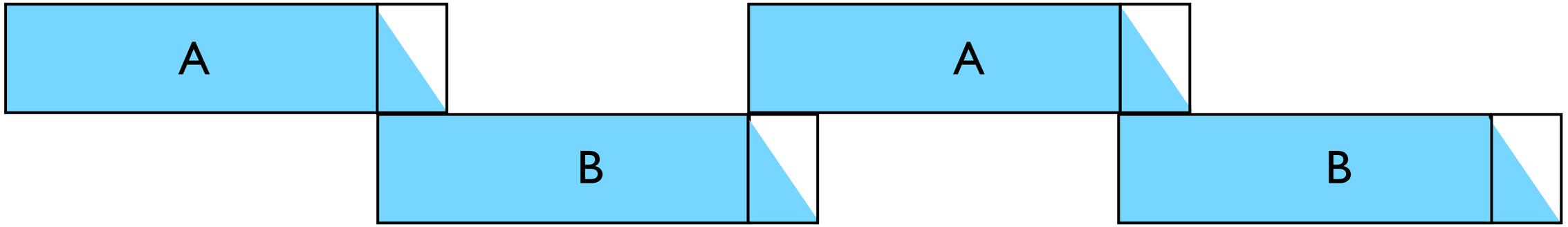
Vertical Layers & Horizontal Chunks



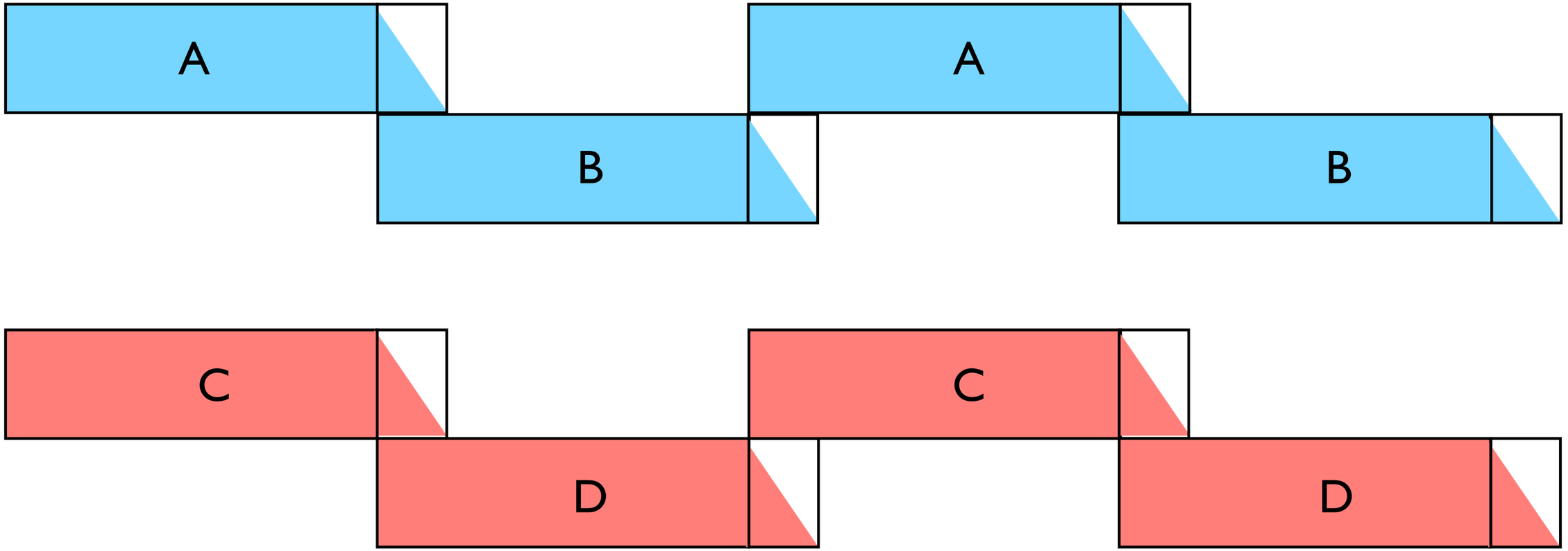
Chequerboarding

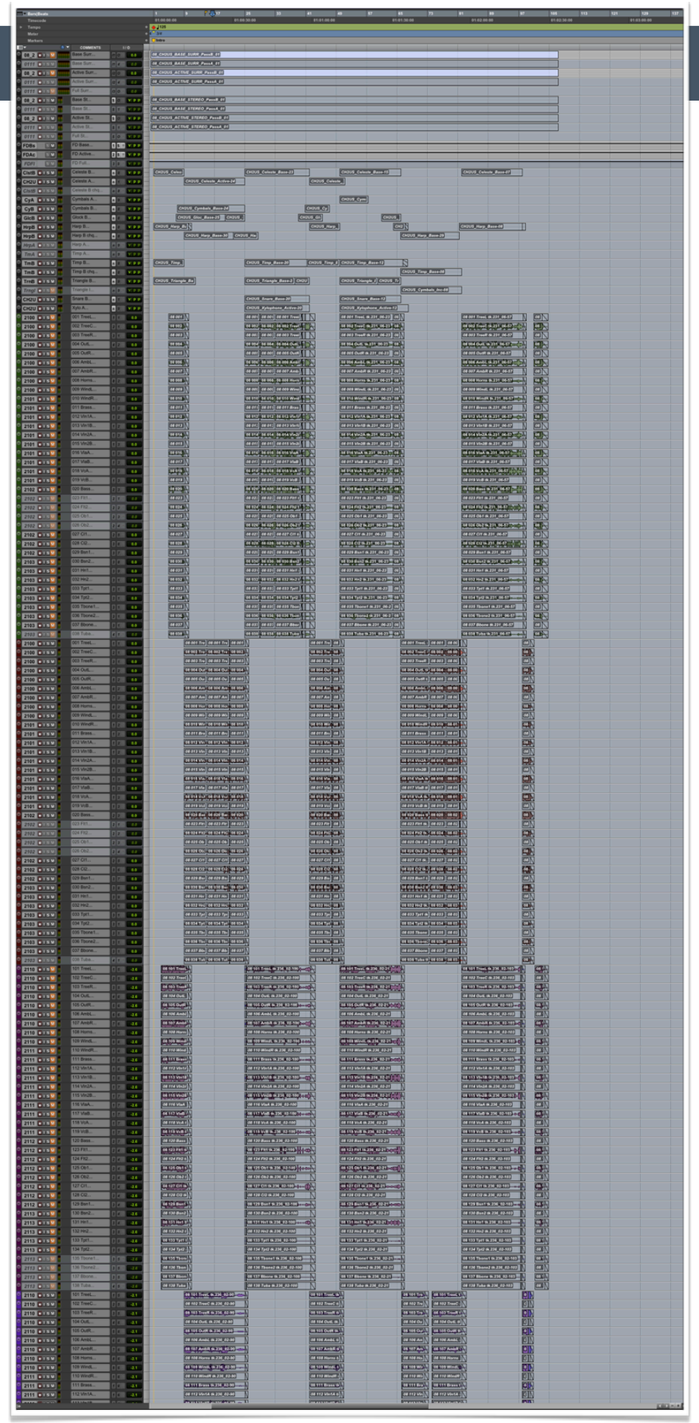


Chequerboarding



Chequerboarding





SUMMARY

- Orchestration is an integral part of composition
- Huge array of colors, textures and timbres
- Not just for orchestral music
- Consider stemming by **musical function**
- Plan carefully
- Clarity is essential
- Be **ambitious**

Questions?

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